



SPRING
of 1911

Descriptive Catalogue

Fruit Trees, Small Fruits Evergreens and Ornamentals

LINN COUNTY NURSERY

Snyder Brothers, Proprietors

CENTER POINT, IOWA

STATE OF IOWA
Certificate of Nursery Inspection
 Office of State Entomologist
 AMES, IOWA

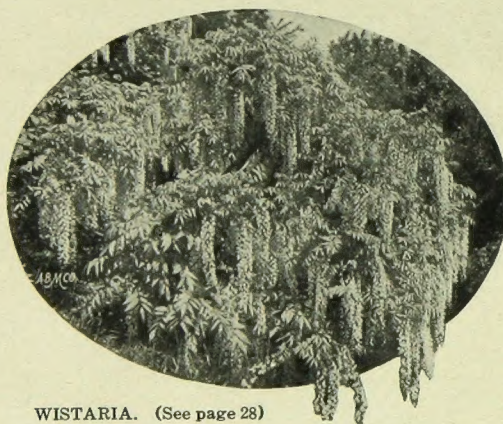
This is to Certify, That in accordance with Chapter 53 of the Acts of the Twenty-seventh General Assembly, as amended by the Thirty-first General Assembly (Code Section 2575-a51), the nursery stock for sale by the **Linn County Nursery, Snyder Bros., Props., of Center Point, Iowa**, has been inspected by a duly authorized inspector and has been found apparently free from dangerously injurious insects and plant diseases.

This certificate is invalid after July 1, 1911.

Certificate No. 119.

Dated Aug. 5, 1910.

H. E. SUMMERS,
 State Entomologist.



WISTARIA. (See page 28)

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Historical



THE LINN COUNTY NURSERY was established in 1892 by A. Snyder & Son. After the death of the senior member of the firm, it was conducted for several years by S. W. Snyder, who in 1907 was joined by a younger brother, under the firm name of Snyder Bros.

Both the present members, therefore, have had a long experience in this business, and in eighteen years have seen it grow from a few rows of stock on the farm to over thirty acres of stock, growing mostly at Center Point.

A certificate of Nursery Inspection certifying that our nurseries have been inspected by the State Entomologist and found free from all dangerous insects, pests and diseases is attached to all orders that leave our nurseries.

Visitors Welcome. Tree-lovers find much satisfaction in seeing and selecting the stock they buy; we therefore, take pleasure in inviting all interested in nursery stock to visit our nurseries and inspect the stock.

Any one wanting extra fine or large specimens of Evergreens or Shade Trees can select them at any time of the year. Anything thus selected will be tagged with the customer's name and delivered at the proper time.

Varieties Not Listed in This Catalog

We have some trees of many kinds not listed in this catalog. If you do not see what you want, write us; we can secure for you anything grown by any American nurseryman, if we do not have it, and the price will be right.

Introductory

It is our intention in this catalog to furnish accurate descriptions and in every case avoid exaggerations which are so common in nursery catalogs. We aim to test out every variety in our orchard before giving it a place in the catalog. We have trees of a number of very promising new fruits and plants which will be described separately on a circular.

We firmly believe in selection, and always cut propagating wood from the trees which produce the best results in the orchard. Practically all of our scions are grown in our own orchard. Those which are not are procured from the most reliable sources. We never send out want lists to see where they can be bought cheapest.

Prices. Our prices are not the lowest—the care which we devote to growing stock increases the cost greatly—but our trees are so vastly superior to those grown without particular care that the difference in first cost appears small by comparison. The point to be considered is that of final results, and in this our trees will outdistance the cheaper ones many times over.

Our Packing and Shipping Facilities. Our large packing-shed and cellar, located near the Rock Island Station at Center Point, give us splendid facilities for handling orders promptly and accurately. All stock will be delivered from this point, and not from our farm as formerly.

Guaranty. We exercise great care to keep our varieties true to name, and are ready at any time to replace any stock that may prove untrue, or refund the amount paid for the same; but it is mutually agreed that we are not to be held liable for any amount greater than the original price of the goods.

Condition. We accept all orders on condition that they shall be void should any injury befall our stock from hail, frost, storm, fire or other causes over which we have no control.

Directions for Ordering

Always state whether shipment is to be made by freight, express, or mail; if by freight or express, state route preferred. When ordering by mail, make your remittance sufficient to cover postage.

Size and Price of stock should be carefully specified. We use every effort to avoid errors, but in a busy season these occasionally occur. If notified promptly of any mistakes, however, we will gladly rectify them.

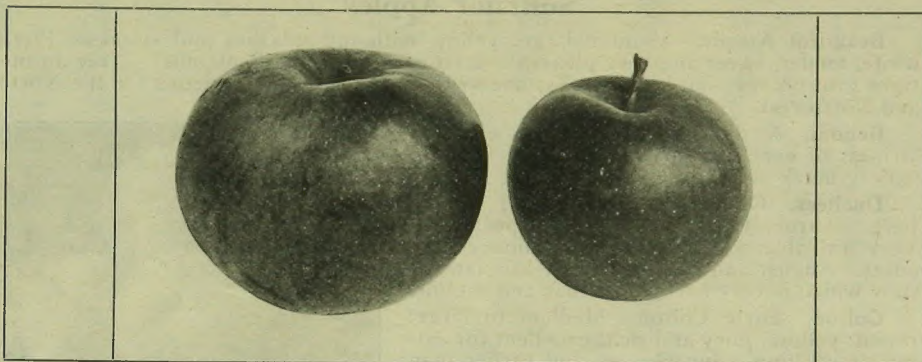
Please Remit Cash With Order whenever possible, especially with small orders. Satisfactory security is required from strangers who desire to open an account with us. Remittance may be by check, draft, money order or registered letter. Stamps are acceptable for amounts less than \$1.00.

We Make No Extra Charge for packing and delivering to freight or express office. The greatest care is taken to pack so that stock will arrive in first-class condition.

Order Early. Every spring we are compelled to refuse orders for certain lines of stock of which we are entirely sold out. Order early and you will be sure of getting what you want, as well as the pick of the stock.

Trees by Mail. For the benefit of our customers living at a distance we are now supplying fruit trees of a size that can be sent by mail, thus saving high express charges. These are one-year trees of named varieties. Should you order a sort of which the supply is exhausted, we reserve the right to substitute a variety equally good and same season. All trees will be well wrapped and packed and sent postpaid at the following prices.

	Each	Doz.	100
Apple, 2 feet	\$0.20	\$2.00	\$10.00
Peach, 2 feet .....	.10	1.00	8.00
Pear, 2 feet .....	.20	2.00	10.00
Plum, 2 feet .....	.20	2.00	10.00
Cherry, 2 feet .....	.20	2.00	10.00



Apples

This most wholesome fruit is being used more extensively every year. An orchard is indispensable to every home, and many diseases are unknown to those who regularly include apples in their diet. Numerous physicians say a person who uses apples freely is not likely to acquire the liquor habit. Surely apples have a value which is being more and more appreciated and is causing a rapidly increasing consumption of them. With proper care in selecting varieties, apples may be had the year round if well cared for.

Iowa is in the heart of the apple producing region of the United States. Last fall at the National apple shows, Iowa apples won first prizes in competition with those from all other parts of the United States. Iowa apples have a quality which cannot be excelled; in addition they have size and color which compares well with the big tasteless apples of the far West. By the application of intensive methods of orcharding it has already been proved that apples can be made as sure a crop here as anywhere.

Commercial Orchardling is in its infancy in Iowa. There are thousands of acres upon which no more profitable investment could be made than to plant a commercial orchard. The enormous quantity of apples shipped into our state and sold for a high price ought to be incentive enough for those possessing suitable soil and location to embark upon such an enterprise.

Varieties. In planting a commercial orchard it is judicious to plant but few varieties and these should be selected with reference to securing the best pollination. Experience has shown that large blocks of the single varieties are often more or less barren.

Size to Plant. It is always best to choose small, thrifty trees two to three years old and from four to seven feet high, as these are more safely transplanted, and with more satisfactory results than older and larger trees.

How Propagated. Our apple trees are grafted by the most approved methods, aiming to produce trees best adapted to withstand the rigors of this climate. They are grafted on Vermont seedlings which are much hardier than the French Crab seedlings commonly used. We use the piece root and long scion and plant up to the top bud; this causes a tree on its own roots and of known hardiness. Experience has repeatedly proved that trees grafted on whole roots are not hardier than the seedling root used, which is very variable and often too tender.

Price List of Apple Trees

	Each	Doz.	100
Large size, 2 and 3 years, 5 to 7 feet	\$0.35	\$3.75	\$30.00
Medium, 2 and 3 years, 4 to 6 feet .....	.30	3.25	25.00
Small, 1 and 2 years, 3 to 4 feet .....	.20	2.00	15.00

Six at dozen and 50 at 100 rates. These rates apply only when the quantity taken is of one variety, otherwise, each rates apply.

Summer Apples

Beautiful Arcade. Medium large; yellow with red splashes and streaks. Flesh white, tender, sweet and very pleasant. Last of August and September. Tree an upright grower, very hardy, vigorous; one of the most desirable varieties for the North and Northwest.

Benoni. Medium; round; yellow with red stripes; of excellent quality. August. An old variety much prized by many.

Duchess. Oldenburg; Duchess of Oldenburg. Large, yellow with red stripes; sour. Very valuable for market and culinary purposes. August and September. A Russian variety which is very hardy, vigorous and prolific.

Colton. Early Colton. Medium to large; round; yellow; juicy and rich; excellent for eating or cooking. Superior to, and earlier than Early Harvest. Very hardy, vigorous and prolific.

Livland. Livland Raspberry; Lowland Raspberry. Medium to large, round; flesh tender, mild and delicious. Our best and earliest summer apple. Tree very hardy, thrifty and prolific.

Red June. Small, red striped; flesh mild and of high quality. August.

Red Astrachan. Large, red, sour, but of good quality. August.

Tetofsky. Medium, yellowish with red stripes, acid; of good quality. August. A hardy, slow growing variety.

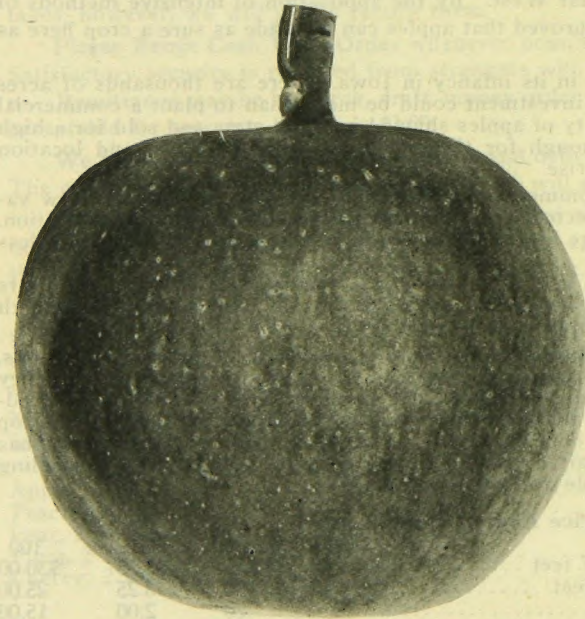
Sops of Wine. Large, round, yellow with red blush; flesh mild and of excellent quality. August and September.

Summer Pear. Large, round, yellow with red cheek; mild, melting and very good. Very hardy, vigorous and a new variety of great promise.

Yellow Transparent. Large, yellow, sour, of good quality, and very early. One of the hardiest of varieties, but very subject to blight.



LIVLAND RASPBERRY.



WEALTHY.

Fall Apples

Anisim. Medium, roundish, red, mild and good. September and October. Very hardy and prolific. A Russian variety.

Charlamoff. Large, round, red striped, sour, good. September. Hardy; A Russian variety.

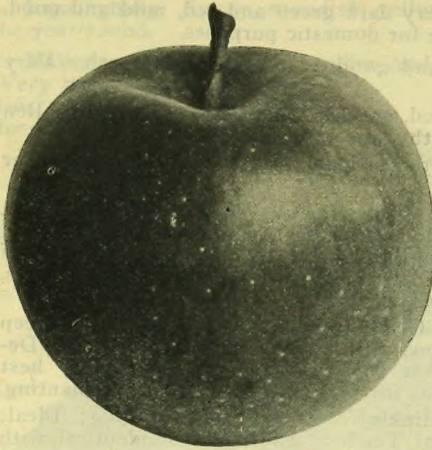
Chenango. Chenango Strawberry—Large to very large, yellow, red striped, mild and very good. August and September.

Dominie. Large, round, green with some red and yellow, mild and of fair quality. October and November.

Dyer. Large, round, reddish yellow, mild; of very highest quality. September and October.

Eastman. Large, roundish, yellow, reddish striped, good. September to October. Very hardy and vigorous.

Fall Orange. Large to very large, round, reddish yellow.



JONATHAN

low, mild, good. September to October. A variety which does extremely well in some localities.

Hibernal. Large, roundish, red striped, very sour, of poor quality. September and October. Extremely hardy; valuable as a stock for top-working.

Irish Peach. Medium, yellowish, beautifully blushed; flesh juicy, acid and good. Ripens just after Duchess. Tree very hardy and prolific.

Longfield. Medium to small, round, yellow with red blush; flesh white, fine grained, tender, richly flavored. October and later. Very hardy, and extremely prolific. Often bears in the nursery. One of the very best apples on the list for culinary purposes.

Patten. Patten's Greening—Large to very large, round, yellow, and good. October. A very hardy crooked growing tree. Valuable in the North where it is a winter apple.

Plum Cider. Large, roundish, yellow with red stripes, mild, good. November and later.

Snow. Medium, roundish, red striped or crimson; flesh mild, snow white, juicy, very highly flavored and delicious. November and December. One of the very best apples of its season.

University. Large, clear yellow with small dots; flesh yellow, pleasant, subacid and very good. Late fall and early winter.

Wealthy. Large to very large, roundish, yellow, red striped; flesh mild, very good. October and November. Valuable for home use or market. It is a winter apple in the north; one of the best varieties for cold storage.

Wolf River. Very large, roundish, white with red stripes, mild; fair quality for cooking.

Winter Apples

Akin. Akin's Red—Much like Jonathan. Medium, round, red, very good. Vigorous, hardy, and a high quality apple.

Allen. Allen's Choice—Medium, roundish, striped; very good, juicy and aromatic. December to March. A very early bearer; vigorous and hardy.

American Blush. Large, roundish, beautiful; yellow and bright red; flesh yellow, fine grained, mild and richly flavored. December to February. Vigorous and productive.

Arctic. Large, roundish, yellow and red, mild, good. December to February.

Babbitt. Western Baldwin. Large, red, round, mild and good. December to February.

Bailey Sweet. Large, round, red, sweet and good. September to December.

Ben Davis. Large to very large, yellow with red stripes, mild and of fair quality. A late variety valuable chiefly for market; should not be planted much north of Central Iowa.



WOLF RIVER

Black Annette. Medium size, roundish, very dark green and red, mild and good. December to April. One of the most valuable for domestic purposes.

Canada Baldwin. Large, roundish, red, and good. December to March. Very hardy, vigorous, upright growing variety.

Collin's Red. Champion. Large, bright red, good. A market variety of the Ben Davis type, but keeps longer. Vigorous, healthy, and a regular bearer.

Gano. Large to very large, yellow with red stripes, mild and good. December to March. Valuable for a market variety.

Greenville. Downing's Winter Maiden Blush. Large, roundish, greenish yellow with red blush; mild and good. December to March. A seedling of the Fall Maiden Blush which it much resembles, but keeps longer. A very vigorous, healthy tree.

Grimes. Grimes' Golden. Medium to large, deep yellow, mild and of very best quality. December to March. One of the very best apples for domestic or commercial planting.

Hinkley. Lone Tree Seedling; Ideal; Legal Tender. Fruit almost identical with York Imperial, but tree much more hardy and vigorous. One of the most promising of the new varieties.

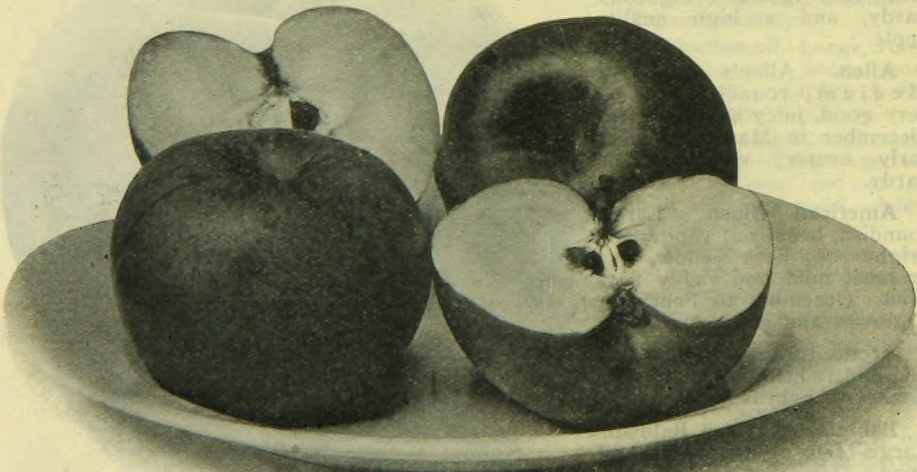
Iowa Blush. Medium or small, roundish, greenish yellow with red blush, mild and very good. December to March. Valuable for home use; very hardy and productive.

Isham Sweet. Large, roundish, red, sweet and good. December to February.

Isherwood. Large, roundish, yellow with red blush, mild and good. January to April. Healthy and very vigorous. A splendid variety for Central Iowa.

Janet. Jeniton; Rall's Janet. Medium size, yellow with red stripes, mild and good. December to March. Should not be planted north of Central Iowa.

Jonathan. Medium to large, roundish or conical, yellow and red; mild and very good. December to March. One of the most valuable for all purposes, but should not be planted extensively north of Central Iowa.



GRIMES' GOLDEN.

Lansingburg. Large, roundish, yellow and red, mild and of fair quality. Keeps the year round.

Malinda. Large, conical, yellow and red, mild and good. December to March. Very hardy, vigorous and prolific. One of the most valuable for planting in the North.



Mann. Large, round, yellow and green, mild and of fair quality. A very late keeper.

McIntosh Red — Large, round, yellow and red, mild and good. December to February. A splendid apple of the Fameuse type.

Missouri Pippin — Large, roundish, yellow with red stripes, mild and of fair quality. December to March. Not strictly hardy here.

STAYMAN'S WINESAP.

Nelson Sweet. Large, roundish, dark green, very sweet and good. Keeps all winter. A strong, free grower and very hardy.

Northern Spy. Large to very large, roundish, yellow with red stripes, mild and very good. December to March. An old variety which is rapidly gaining in popularity. We have been propagating our stock from a superior strain of this variety which we believe to be one of the best things on our list.

North Star. Large, roundish, red and yellow, mild and good. January to April. A very vigorous grower; hardy and productive.

Northwestern Greening. Large to very large, roundish, yellowish green, mild and good. December to April. Very vigorous and hardy; one of the best for commercial planting in the northern part of the state. An apple which is gaining in popularity.

Peru. Delicious—Medium to large, roundish, yellow with red stripes, mild and very good. November to February.

Paradise Winter Sweet. Large, roundish, yellow, sweet and very good. December to March. Hardy and very vigorous, but not very prolific in some localities.

Regan's Red. Black Ben Davis—Large to very large, dark red, mild and very

good. December to March. Larger, better colored, and somewhat better than Ben Davis, but of about the same hardiness.

Roman Stem. Medium to large, round, yellow, red blushed, mild, very good. December to April. An old variety unexcelled for home use; one of the very best for cooking.

Salome. Large, round, yellow and red, mild and good. December to April. A very beautiful apple which is rapidly becoming popular.

Sheriff. Medium to large, red, mild and good. December to February. Bears early and regular; a variety much too little known.

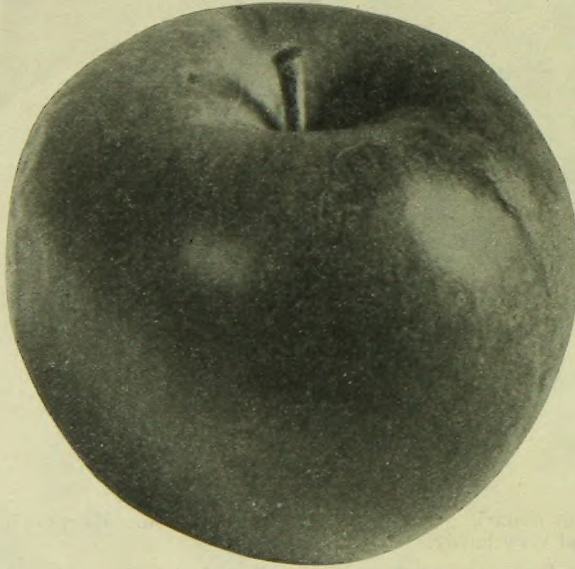
Stayman. Stayman's Winesap—Large to very large, roundish, red, mild, very good. December to March. A seedling of the old Winesap, of much the same color and quality, but larger and hardier. One of the best for commercial planting.

Talman Sweet. Medium to large, yellow, very sweet and good. December to February.

Walbridge. Medium to large, yellow and red striped, mild, and of fair quality. December to March.

Wagener. Large, roundish, yellow and red striped, mild and good. December to March.

White Pippin. Large to very large, roundish, white with a little red and yellow; mild; very good. December to March.



YORK IMPERIAL.

Windsor. Medium to large, round, yellow and red, mild and good. December to February.

Willow Twig. Large, roundish, yellow and red, mild, good. February to April.

Winter Banana. Large, round, bright yellow, mild, very good. December to March.

Winter Fameuse. Medium size, roundish, not as well colored as Fameuse or Snow; of the same quality, but keeps two to three months longer.

Weismers Dessert. Medium to large, yellow and red, mild, delicious. December to March. An apple of very high quality.

York Imperial. Johnson's Fine Winter—Large, yellow, red striped, mild and good. January to March. Not strictly hardy here; Hinkley is recommended in its place.

Crab Apples

These hardy and beautiful trees should be among the first things planted. They can be depended upon to stand where other apples are not hardy enough, and produce an abundance of good fruit. Many of them make splendid eating apples and are a great delight to the children.

Prices, except Wild Red Crabs, the same as other apples.

Alaska. Fruit larger than Transcendent; a good keeper, and very good.

Briar Sweet. Medium, yellowish with red blush; very sweet and good. Slightly bitter if not fully ripe.

Excelsior. Large, handsome, and good. Ripens just after Duchess. A seedling of Wealthy and of similar quality.

Florence. Large, yellow and red; very good for all purposes. Very hardy and productive.



TRANSCENDENT CRABS

Gideon. Large, yellow and white, very good; one of the best of the new varieties.

Golden Beauty. Very large and handsome; golden yellow; very good.

Hyslop. Dark red, popular and hardy, except for blight.

Quaker Beauty. Large, yellowish with brown cheek; very good. November to February.

Red Siberian. Small but very prolific. September.

Soulard. Very large, yellowish with the flavor of the Wild Crab. February to June. Valuable for cooking; very hardy and prolific.

Sweet Russet. Large to very large, yellow with some russet; very sweet and rich; a delightful eating apple. Slow growing, hardy and productive. September.

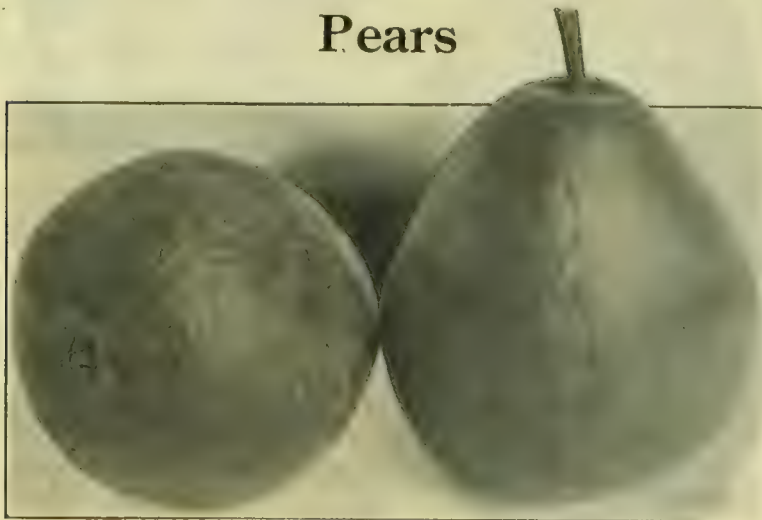
Transcendent. Large, yellow and red; very good. Tree blights badly.

Whitney. "No. 20"—Large to very large, greenish and red, very juicy and good. A splendid variety for eating or cooking. Tree very vigorous, hardy, and handsome.

White Arctic. Very large, white, tender, rich and juicy. Vigorous and very hardy.

Wild Red Crab. A cross between the wild crab and one of our cultivated apples; about the size of Whitney, darker red and with the same quality of the wild crab. Excellent for cooking; easily kept the year round. The most rapid growing for all apple trees. 5 to 7 feet, 40c; 4 to 5 feet, 30c.

Pears



SEOKEL

Although formerly considered very unfavorable for Pear growing, the Iowa soil and climate are now proving themselves well adapted to the production of numerous

varieties, especially Kieffer and Seckel. No one should plant Pears extensively in this state without first assuring himself what varieties will succeed in his soil; but with proper investigation, we are convinced that every section of Iowa will produce one or more varieties of Pears with excellent results.

As a commercial fruit the Pear stands close to the apple and the peach, and we are convinced that the time is near at hand when Iowa will grow the Pears needed for its own markets.

The varieties listed below are considered especially free from blight, which is the great enemy of the Pear. This disease, when it appears at all, shows itself in the blackening and drooping of the leaves, and is controlled by cutting off the infected branches several inches beyond the point to which the disease extends, and burning them. Dipping the pruning tools frequently during the process in a solution of bichloride of mercury will prevent a spreading of the disease. By selecting our trees and exercising proper care, however, little trouble from blight need be expected in growing Pears.

Price List of Pear Trees.

	Each	10	50	100
Large size, 5 to 7 feet, 2 to 3 years	\$0.50	\$4.50	\$20.00	\$37.50
Medium, 4 to 5 feet, 2 to 3 years .....	.40	3.50	15.00	27.50

Dwarf Pear. Varieties marked with a * can be furnished in dwarfs; these are budded upon quince roots, first-class, caliper $\frac{3}{4}$ inch and up. Same price as first-class standard.

***Bartlett**—Large, and September. An blights badly in most planting.

Flemish Beauty juicy, sweet and

yellow and red, juicy, melting, highly flavored. August early and abundant bearer. This excellent variety places in Iowa, so cannot be recommended for general

—Large to very large, yellow with red blush, melting, good. September.

Garber. Large, yellow and red, firm and granular; juicy, acid; of fair quality. October. A very vigorous grower.

Golden Russet. Large, golden yellow, russeted, firm, granular, juicy and good. A very thrifty and healthy variety; very promising for Southern and Central Iowa.

Howell. Large, yellow and red, very juicy and good. September.

***Kieffer.** Large, yellow, russeted, granular, melting, juicy and sweet. October and November. A very hardy, vigorous variety, remarkably free from blight. An early and abundant bearer; valuable chiefly for cooking and canning. The fruit should be kept until well ripened before using.

Krull. Large, yellowish green, firm, becoming juicy, melting, rich and sweet. A very late keeping variety; healthy and vigorous.

Lincoln. Large, yellow and red, buttery, melting, sweet and very good. September. Hardy and prolific.

Mongolian Snow. Medium to large, yellow, russeted, firm; similar in quality to Kieffer. Should be ripened in the house. Very vigorous, hardy and productive.

Mt. Vernon. Large, yellow and red, granular, melting, juicy and very good. October.

Rossney. Large, yellowish, buttery, juicy, melting and very good. September. Hardy, vigorous and free from blight.



BARTLETT

***Seckel.** Small, brownish green with red russet, buttery, melting, juicy and delicious; of the very best quality. September. A slow growing, very hardy and healthy variety.

Sheldon. Large, greenish yellow, russeted, melting, juicy, sweet and very good. October.

Vermont Beauty. Medium size, yellow and red, rich and juicy, very good. October. Very hardy, vigorous and prolific.

***Wilder.** Small to medium, yellow, shaded crimson, fine grained, tender, good. Vigorous and productive. August.

Worden Seckel. A seedling of Seckel; of similar quality, but much superior in size and color. Hardy and productive. October.

Peaches

Hardy Peaches are one of our leading specialties. The list of varieties we offer are the result of years of experimenting in endeavoring to find varieties hardy enough to endure the trying Iowa winters. Success is found largely in the varieties originating here in Iowa. We claim the list here submitted cannot be excelled for hardiness.



ELBERTA

We do not claim that Peach trees are as hardy as plum and apple, but they have succeeded in living through our most severe winters. While they may be more or less injured by an occasional trying winter, yet by proper pruning and cutting back they will outgrow their injuries and continue to bear profitable crops of fruit.

Our Peach trees are budded upon the hardiest stock in existence, namely, seedlings produced from native grown seed of the Bailey Peach. We plant them about a foot deeper than they stood in the nursery, so that if the tree is ever killed back to the ground it will throw up a sprout from above the bud union and thus renew the tree.

Prices of Peach.

	Each	10	100
5 to 6 feet	\$0.30	\$2.75	\$25.00
4 to 5 feet .....	.25	2.00	18.00
3 to 4 feet .....	.20	1.50	14.00

Arctic. Large, yellow, red checked; flesh yellow, good; free stone. October. One of the hardiest peaches in both tree and fruit bud.

Bailey. Friday Seedling—Medium size, whitish with red cheek; white flesh, juicy, sweet and good. Pit very small and free. September. This variety has been grown in Iowa for over seventy years, and has averaged three crops every five years.

Banner. A Canadian variety; large, deep yellow with crimson cheeks. Free. Flesh yellow, rich, firm and very good. Last of September. One of the best.

Bednar. Originated in Cedar Rapids, Iowa. Large, oblong, yellow, free stone; very good.

Bokara No. 3. Medium to large, free stone; yellow with red cheek; flesh yellow, juicy and good. September. A hardy variety from Asia.

Champion. Large, creamy white with red cheeks; flesh white, very sweet, juicy and rich. August. One of the best and hardiest of the earlier varieties.

Elberta. Very large, yellow with red blush, free stone; flesh yellow, juicy and good. Vigorous and moderately hardy. September.

Leigh. Originated in Mt. Vernon, Iowa. Large, white with red blush, free stone; flesh white, very sweet, juicy and good. The original trees have produced as many as eight bushel at a crop, younger trees often bear three or four bushel. One of the most hardy and productive.

Lone Tree. Originated in Johnson Co., Iowa. Medium to large, golden yellow; flesh yellow, juicy, rich and very good. Pit very small and free. Middle of September.

Pierpont. Another Linn Co. seedling; large, yellow with red cheek; flesh white, juicy and excellent. Pit very small and free. September. Apparently very hardy and promising.

Russell No. 1. Medium size, whitish with red cheek; pit small and free. Flesh greenish white, juicy and good. Middle of September.

Wolf. Wolf's Lone Tree Seedling—A seedling of the Lone Tree; its equal in size and quality; but has a bright red cheek and ripens ten days earlier. Tree hardy and very productive. Very promising.

Stearns. Originated in Western Michigan. Large, round, yellow with brilliant red. Pit small and perfectly free; flesh firm, yellow and very good. A very promising new variety.

Myers. Medium to large, yellow and red, free stone; flesh yellow, juicy and rich. This peach has been grown in Southeastern Iowa for many years, and has made a splendid record.

Plums

No other fruit has a greater variety of uses, or is capable of satisfying a greater variety of tastes than the Plum. It is in its native element in Iowa soil and climate, this section having been favored with many choice varieties in its primitive state.

Varieties. We are making this fruit a specialty and our experimental orchard is our delight. Up to the present we have planted in it 250 varieties, many of which have been discarded. It is our aim to test all varieties which come well recommended and propagate only the best. By careful selection one may enjoy fresh plums from early in August until late October.

Cultivation. Do not deceive yourself by thinking you can plant a lot of Plum trees in an old, dry, soddy patch and make them board themselves, work for nothing and yield bountiful crops of luscious fruit; if you do, you will certainly be disappointed. Give them your best land and as thorough and frequent a cultivation as you do your cornfield or garden, and you will succeed. Clean cultivation is one of the best remedies for the plum curculio.

Crooked Trees. It is practically impossible to grow what some people would call a "decent" tree of some varieties, yet these same trees afterward develop into well-shaped orchard trees.

Prices of Plum Trees.

	Each	10	50	100
5 to 7 feet, 2 to 3 years	\$0.50	\$4.50	\$20.00	\$37.00
4 to 5 feet, 2 to 3 year .....	.40	3.50	15.00	27.50
3 to 4 feet, 1 to 2 years .....	.30	3.00	10.00	18.00
2 to 3 feet, 1-year switches .....	.15	1.50	7.00	12.50

Five at 10, 25 at 50, and 50 at 100 rates. Orders for 25 or 50 trees containing a long list of varieties cannot be filled at 50 or 100 rates.

Grouping. We group the different varieties in the families to which they belong.

The American or Native Group includes our common red and yellow plums and are native to this part of the United States. These are the hardiest of the plums.

Beatty. Large to very large, oblong, very beautiful, yellow and red, free stone; very good. Last of August. Equal to De Soto for cooking and dessert. An upright growing, symmetrical tree; very hardy and thrifty.

De Soto. Our old standby. Medium to large, roundish, bright yellow and red; free stone; very good for every purpose. Last of August. Very hardy and healthy; its one fault is overbearing. Thin the fruit for best results.

Hawkeye. Large to very large, oblong, thick skinned, grayish purple; good for dessert, but cooks very sour. Last of August. Hardy and productive.

Snyder. Originated by J. H. Fairchilds, Coggon, Iowa. Large to very large, reddish purple, thick skinned; very good for dessert but cooks sour. Thrifty and productive.

Wyant. Large, purplish red, free stone, thick skinned, easy to peel. August. One of the very best of plums for dessert but develops too much acid in cooking to suit most people. Very productive and hardy.

Terry. Large to very large, purplish red, thin but tough skinned; very good. A thrifty and prolific variety, especially valuable for market.

Stoddard. Large, round, red; good for dessert. August. Develops too much acid for cooking.

Miner Group

The varieties comprising this group are comparatively late in ripening, but uniformly productive; of large, beautifully colored fruit of the best quality. They are usually self-sterile but the kinds effectually pollinate each other, if thoroughly mixed through the orchard.

Miner. An old variety; large, round, dull red, cling stone; valuable for all purposes. September. Should be planted with other varieties to secure pollination, otherwise it may be a shy bearer.

Surprise. Large, red, cling stone, rich, sugary and delicious. September. Good for all purposes. Prolific, vigorous and hardy far into the Northwest. One of the most valuable for market or home use.

Wild Goose Group

This we regard as the commercial group of the native plums. Varieties listed can be relied upon to produce 1500 quarts per acre probably three years out of five. They are not as a rule quite as hardy as varieties of other groups, and for that reason should not be planted beyond, if quite to, the north line of Iowa.

Whitaker. Large, bright red, cling stone, sweet, juicy and very good. Skin thin, and peels like a scalded tomato. The best and most dependable early variety; it very rarely fails, and produced a fair crop even this year. Middle of July.



JAPAN PLUM

Pottawattamie. Medium to large, round, red, good. August. Valuable for market.

Japanese Group

The varieties of this numerous family which we consider worthy to be retained in the orchard are very limited. The reason we retain any of them is on account of their superior quality of fruit and great productiveness. In point of hardiness and other characteristics of tree, none of them can be very highly recommended. We will continue to propagate a few of the best varieties, which we list below.

Burbank. Large to very large, marbled and overspread with dull red; cling stone. August. Flesh yellow, very sweet and agreeable. Very productive.

Abundance. Sweet Botan—Large to very large, greenish yellow with red blush and marked suture; excellent. One of the very sweetest of fruits. A vigorous, upright grower and extremely prolific.

Maynard. Very large, round, dull red, firm, juicy, rich and sweet; very good. A very vigorous grower; one of Burbank's recent introductions.

Red June. Large, dull red, firm, sweet and good. July. The first of all to ripen.

Domestic Group

This family embraces the European varieties of Plums and Prunes. They must be sprayed regularly to prevent the curculio and brown rot from destroying the crop. If it were not for this pest, this class of Plums, including Prunes, could be as easily and profitably produced as any of the common natives, and of late it is in fact a serious question whether it will be a profitable undertaking to try to grow the common natives without also preparing to spray regularly. Spraying is so beneficial to trees and fruit that no one should hesitate at the time and trouble it involves. Once we succeed in bringing a crop of these garden Plums, as they are sometimes called, to maturity, there is greater satisfaction to be derived from the various uses to which they can be applied than from any other class of Plums. Many of them are most delicious dessert fruits, some are unexcelled for culinary use and several make excellent prunes when properly cured. We submit a short list of the best of this class for this section.

Richland. Large, oblong, reddish purple or coppery; free stone; flesh greenish yellow, sweet, very good for dessert or culinary use. August.

Communia. Large, roundish, oblong, dark blue, juicy, sweet and very good for all purposes. September.

Spanish King. Large, roundish, oblong, blue; flesh yellow, juicy, sweet and very good. One of the best of this class of plums for all purposes. Hardy and vigorous. September.

Tatge. Large, roundish, oblong, dark blue; flesh yellow, sweet and good. Similar to Spanish King. Makes an excellent prune. September.

Blue Moldovka. Large to very large, blue, free stone; flesh juicy, rich and luscious. A Russian variety; productive, hardy and desirable.

German Prune. Large, oblong, purple or blue, rich, juicy and very good. Vigorous and productive. One of the best of the Prune family.

Shropshire Damson. Medium size, dark purple; very good. Fruit is borne in clusters. Very fine for cooking and preserving. October.

Reine Claude. Bavay's Green Gage—Large, oval, greenish; good. A great favorite wherever known. September. A spreading, rather slow growing tree.

Shipper's Pride. Very large, dark purple, and very showy. Flesh juicy, sweet and good; valuable for market. Last of August.

Deaton. Large, light green; free stone. Excellent for dessert or culinary use. Last of August.

French Damson. Medium size, dark blue, almost black; free stone; flesh yellowish green. Splendid for dessert or cooking. Fruit colors long before ripe. Last of September. Very prolific, hardy and vigorous.

Ungarnished Prune. Large, dark blue; free stone; very good when well ripened. Not an early bearer, but very productive. A low spreading tree, which has proven very profitable for us.

Hybrid Group

Our list of Hybrids is rapidly increasing, but we catalog only two standbys.

Compass. Miner Plum and Sand Cherry—Small, purplish red, very good for cooking. Tree wonderfully thrifty, healthy and hardy far into the Northwest.

Gold. (Robinson and Botan).—Large, golden yellow with some red, juicy, sweet and delicious; fairly hardy and vigorous.

Cherries



EARLY RICHMOND

The Cherry is so universally liked and so suitable for shipping that it is almost impossible to over-stock the market with good fruit. Of late years there has not been nearly enough to supply the demand. Cherry orchards often yield \$50 to \$250 per acre at a single season. Cherry trees thrive on any well drained upland.

Our stock of Cherry trees for this year is by far the largest and finest we have ever grown. We know they will please anyone, and invite inspection.

The following is a list of the best out of many varieties.

Price List of Cherry Trees.

	Each	10	50	100
First-class, 2 years, 5 to 6 feet	\$0.50	\$4.50	\$20.00	\$37.50
First-class, 2 years, 4 to 5 feet .....	.40	3.50	15.00	27.50
First-class, 1 year, 3 to 4 feet .....	.30	3.00	10.00	18.00
First-class, 1 year, 2 to 3 feet .....	.20	2.00	8.00	15.00

Five at 10, 25 at 50, and 50 at 100 rates; the above rates only to apply when the quantity taken is of one variety; orders for 25 or 50 trees containing a long list of varieties cannot be filled at 50 and 100 rates.

Richmond. Early Richmond. The standard early variety. Red, round, juicy. First of June. Valuable for market or home use. Tree hardy, and a regular bearer.

Montmorency. Large to very large, round, red; ten days later than Richmond. Flesh firm, meaty, much superior to Richmond in quality. Tree very hardy and productive. One of the most profitable varieties to plant.

Dyehouse. Large, round, red and good. Slightly earlier than Richmond and much like it.

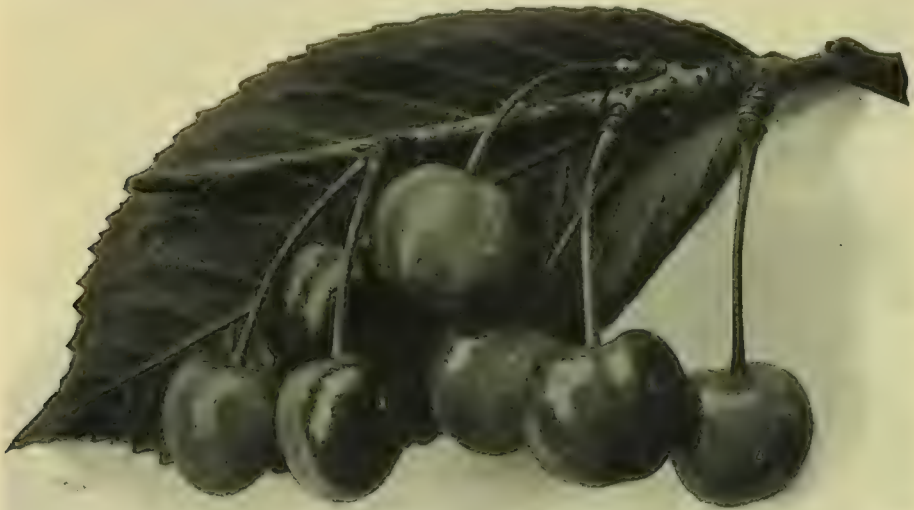
Baldwin. Medium, dark red, round, good. Tree vigorous and healthy, very resistant to leaf diseases. A promising new variety.

Wragg. Large, handsome, dark red, good. Early July. Should not be picked until dark colored. Hardy and productive.

English Morello. Almost identical with Wragg. One of the best of this class of cherries.

Ostheim. Large, dark red, almost black; tender, juicy, mild, almost sweet; very good. A hardy Russian variety; the best of the Morello's.

Sweet Varieties



YELLOW GLASS

Yellow Glass. Double Glass—Large, roundish, heart-shaped, bright yellow, juicy, very sweet and good; one never tires of eating them. Tree very vigorous; certainly the hardiest of sweet cherries. Imported by Professor Budd from Silesia in 1882. In spite of the freezing it ripened a few fruits this year. 1-year buds, 5 to 6 ft., 50c; 4 to 5 ft., 40c; 3 to 4 feet., 30c.

Grapes

There is not a yard so small but that there is room for from one to a dozen grape vines. They may be trained on a building, arbor, or fences if necessary, and they will richly reward the planter with an abundance of the most healthful fruit. Any well drained land will produce grapes.

Plant them in rows, 6 to 8 feet or more apart. Dig holes so as not to have to fold the roots in planting, cut back the top to two buds, prune off most of the new growth each fall, lay down the vines and cover with dirt for winter protection.

Agawam. Red; large to very large, aromatic, sweet and good. Very vigorous and productive. Needs winter protection. 10c each; \$1.00 per dozen; \$8.00 per 100.

Brighton. Red; large, sweet, delicious. Should be planted with other varieties for pollination. Requires protection. 10c each; \$1.00 per dozen; \$8.00 per 100.

Campbell's Early. Black; very sweet, juicy and good. This variety does not seem to be adapted to this part of the country. In our vineyard the vines have not paid for themselves and do not promise to do so. 25c each; \$2.75 per dozen.

Concord. Black. The well known standard variety for all purposes. Size medium; succeeds wherever grapes are known. 10c each; 90c per dozen; \$7.00 per 100.

Delaware. Light red; bunch and berry small and compact; very sweet and highly flavored. Best in quality of all American grapes. Needs winter protection for good results. 10c each; \$1.00 per dozen.

Diamond. Moore's Diamond—White; large, round, greenish white, sweet, juicy and very good. Healthy, vigorous, prolific and very hardy. One of the best of the white varieties. 10c each; \$1.00 per dozen; \$8.00 per 100.

Moore's. Moore's Early—Black; berries large to very large, round, black, very sweet and good. Two to three weeks earlier than Concord. This variety grows in favor every year; one of the most profitable for market and should be in every garden. 15c each; \$1.50 per dozen; \$10.00 per 100.

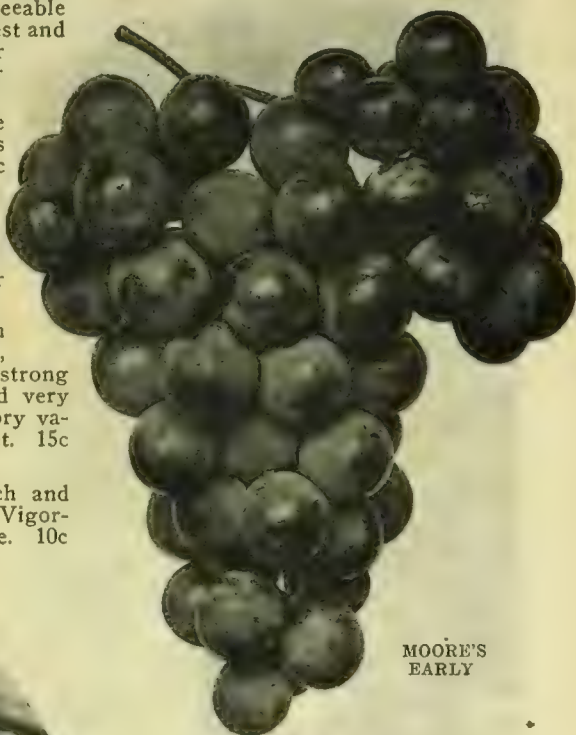
Niagara. White; large to very large, melting, sweet, with a peculiar, agreeable flavor. Hardy and productive. The best and most satisfactory of white grapes for all purposes. 10c each; \$1.00 per dozen; \$8.00 per 100.

Pocklington. White; very large and showy, sweet and good. Vigorous and hardy. Ripens with Concord. 10c each; \$1.00 per dozen; \$8.00 per 100.

Woodruff Red. Woodruff—Red; very sweet and good. A little earlier than Concord. Very vigorous, hardy and healthy. 25c each; \$1.00 per dozen; \$8.00 per 100.

Worden. Black; berry and bunch large and compact. Sweeter, better, and a little earlier than Concord. A strong grower, heavy yielder, healthy and very hardy. The best and most satisfactory variety to plant for home use or market. 15c each; \$1.50 dozen; \$10.00 per 100.

Wyoming Red. Light red; bunch and berry small, tender, sweet and good. Vigorous, hardy, and the earliest red grape. 10c each; \$1.00 per dozen; \$8.00 per 100.



MOORE'S
EARLY

Currants

Currants do best on good, rich, moist soil and should be well manured. Plant 4 to 6 feet apart, and prune closely at time of setting. Keep the old wood pruned out every year. The currant worm can be destroyed by a timely use of any of the arsenicals, or by white hellebore if the fruit is too near maturity for other poison.

Cherry. Berries very large, bright red, mild and good. An early variety, well adapted for market. 15c each; \$1.50 per dozen; \$10.00 per 100.

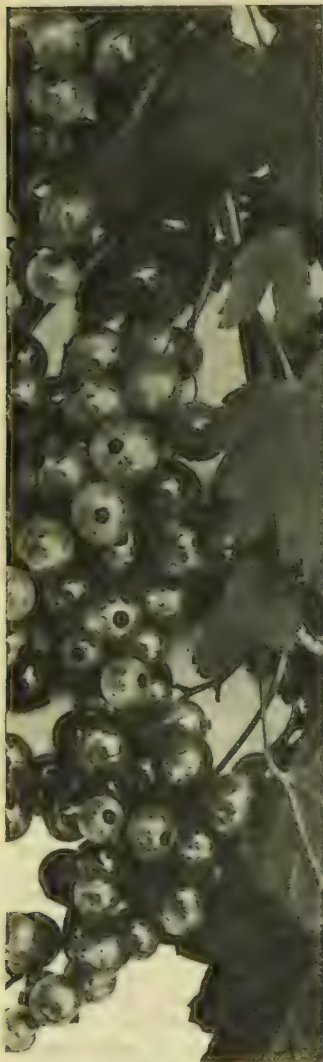
Fay's. Fay's Prolific. Berries very large, bright red, mild and good. Another good market variety. 15c each; \$1.50 per dozen, \$10.00 per 100.

London Market. Berries Large, bright red, firm and good. Clusters compact and very long. Vigorous and hardy. Very healthy. One of the best for market. 15c each; \$1.50 per dozen; \$10.00 per 100.

Perfection. A cross between Fay's and White Grape, retaining the valuable



FAY'S PROLIFIC



WHITE GRAPE CURRANT

finer fruit, and easier and quicker cultivation. Give this plan a trial and you will soon be convinced of its advantages over the old way.

Older. Large, roundish, very early, rich and good. A great drought resister. Ripens perfectly; seeds small. Originated in Iowa, and is one of the hardiest on the list; a fine variety for home use or local market. Not firm enough for long shipments. 5c each; 50c per dozen; \$2.50 per 100; \$15.00 per 1,000.

Kansas. Large, early, moderately firm, and very good. Enormously productive; withstands drought splendidly. Many give it first place for home use or market. Same price as Older.

Gregg. Very large and productive, sweet and good; very firm. One of the very best shippers. Eight to ten days later than Older. Same price as Older.

Conrath. Large, hardy variety; ripening between Older and Gregg. Productive, and a good shipper. Same price as Older.

characteristics of both; beautiful bright red, as large as Fay's; holding its size to the end of the bunch. Easy to pick, very prolific, mild and of very good quality. A valuable new variety. 2-year, No. 1, 25c each; \$2.75 per dozen.

Pomona. Berries large, bright red, very mild and good. One of the most productive varieties known. 15c each; \$1.50 per dozen; \$10.00 per 100.

Victoria. A standard variety; very large, bright red, mild and good. Very productive. A splendid variety. 10c each; \$1.00 per dozen; \$8.00 per 100.

White Grape. Berries very large, sweet and very mild. Excellent; one of the very best Currants of all. 15c each; \$1.50 per dozen; \$10.00 per 100.

Gooseberries

All we have said concerning Currants applies also to the Gooseberry. Who, that is acquainted with its different uses and knows the delights of a good Gooseberry pie would be without this wholesome fruit?

Houghton. Medium, roundish, pale red; very good. Enormously productive. An old standby. It has the genuine Gooseberry flavor. 2-year, No. 1, 10c each; \$1.00 per dozen; \$8.00 per 100.

Downing. Large to very large, round, green, juicy and good. A very satisfactory variety. 2-year, No. 1, 15c each; \$1.50 per dozen; \$12.00 per 100.

Champion. Large, roundish, greenish yellow, very good. One of the most productive of all. Entirely free from mildew. We consider this our leading variety; the very best for all purposes. 2-year, No. 1, 20c each; \$2.00 per dozen; \$15.00 per 100.

Raspberries

A common plan for laying out a Raspberry plantation is to plant in rows 6 to 8 feet apart and 2 to 3 feet or more in the row; but recent experience has convinced us that there is a better plan. It is to plant in hedge rows, 8 to 10 feet apart and 12 to 18 inches apart in a row. The dense hedge row smothers out all weeds, and renders cultivation easier and quicker. The space between the rows should be frequently and well cultivated.

It is a well known fact that Raspberries are always finer, larger and sweeter if grown partially in the shade; the hedge row furnishes this condition. It also protects the young canes from being twisted and broken by the wind. The result is more canes,

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Food Why It Should Be Eaten. Value of Honey.

Honey Cooking=
Recipes. _____

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BY Dr. C. C. Miller.

**SNYDER BROS.**

**Proprietors of Linn County Apiaries**

**PRODUCERS OF FINEST HONEY  
FOR TABLE USE**

About 60 lbs. of sugar on the average is annually consumed by every man, woman, and child in the United States. Of course, many use less than the average, but to make up for it some consume several times as much. It is only within the last few centuries that sugar has become known, and only within the last generation that refined sugars have become so low in price that they may be commonly used in the poorest families. Formerly honey was the principal sweet, and it was one of the items sent as a propitiatory offering by Jacob to his unrecognized son, the chief ruler of Egypt, three thousand years before the first sugar-refinery was built.

It would be greatly for the health of the present generation if honey could be at least partially restored to its former place as a common article of diet. The almost universal craving for sweets of some kind shows a real need of the system in that direction; but the excessive use of sugar brings in its train a long list of ills. Besides the various disorders of the alimentary canal, that dread scourge, Bright's disease of the kidneys, is credited with being one of the results of sugar-eating. When cane sugar is taken into the stomach, it can not be assimilated until first changed by digestion into grape sugar. Only too often the overtaxed stomach fails to properly perform this digestion, then comes sour stomach and various dyspeptic phases. Prof. A. J. Cook says: "If cane sugar is absorbed without change, it will be removed by the kidneys, and may result in their break-down; and physicians may be correct in asserting that the large

consumption of cane sugar by the 19th-century man is harmful to the great eliminators—the kidneys—and so a menace to health and long life."

Now, in the wonderful laboratory of the hive there is found a sweet that needs no further digestion, having been prepared fully by those wonderful chemists, the bees, for prompt assimilation without taxing stomach or kidneys. As Prof. Cook says: "There can be no doubt but that in eating honey our digestive machinery is saved work that it would have to perform if we ate cane sugar; and in case it is overworked and feeble, this may be just the respite that will save from a breakdown." A. I. Root says: "Many people who can not eat sugar without having unpleasant symptoms follow will find by careful test that they can eat good well-ripened honey without any difficulty at all."

Not only is honey the most wholesome of all sweets, but it is the most delicious. **Honey the Most Delicious Sauce.** No preparation of man can equal the delicately flavored product of the hive. Millions of flowers are brought under tribute, presenting their tiny cups of dainty nectar to be gathered by the busy riflers; and when they have brought it to the proper consistency, and stored it in the wondrously wrought waxen cells, and sealed it with coverings of snowy whiteness, no more tempting dish can grace the table at the most lavish banquet; and yet its cost is so moderate that it may well find its place on the tables of the common people every day in the week.

Indeed, in many cases it may be a matter

of real economy to lessen the butter-bill by letting honey in part take its place. One pound of honey will go as far as a pound of butter; and if both articles be of the best quality the honey will cost the less of the two. Often a prime article of extracted honey, equal to comb honey in every respect except appearance, can be obtained for half the price of butter, or less. Butter is at its best, only when "fresh;" while honey properly kept remains indefinitely good—no need to hurry it out of the way for fear it may become rancid.

Prof. Cook says: "We all know how children long for candy. This longing gives children voices a need, and is another evidence of the necessity of sugar in our diet. . . . Children should be given all the honey at each mealtime that they will eat. It is safer; will largely do away with the inordinate longing for candy and other sweets; and in lessening the desire will doubtless diminish the amount of cane sugar eaten. Then if cane sugar does work mischief with health, the harm may be prevented."

Ask the average child whether he will have honey alone on his bread, or butter alone, and almost invariably he will promptly answer, "Honey." Yet seldom are the needs or the tastes of the child properly consulted. The old man craves fat meat; the child loathes it. He wants sweet, not fat. He delights to eat honey; it is a wholesome food for him, and is not expensive. Why should he not have it?

Sugar is much used in hot drinks, as in coffee and tea. The substitution of a mild-flavored honey in such uses may be a very

**Honey is Best Sweetening for Hot Drinks.** profitable thing for the health. Indeed, it would be better for the health if the only hot drink were what is called in Germany honey-tea—a cup of hot water with one or two tablespoonfuls of extracted honey. The attainment of great age has in some cases been attributed largely to the life-long use of honey-tea.

At the present day honey is placed on the market in two forms—in the comb and extracted. Strained honey, obtained by mashing or melting combs containing bees, pollen, and honey, has rightly gone out of use. Extracted honey is simply honey thrown out of the comb in a machine called a honey-extractor. The combs are revolved rapidly, in a cylinder, and centrifugal force throws out the honey. The comb remains uninjured, and is returned to the hive to be refilled again and again. For this reason extracted honey is usually sold at a less price than comb honey, because each pound of comb is made at the expense of several pounds of honey.

Many people think "honey is honey," all just alike; but this is a great mistake. **Different Kinds and Flavors of Honey.** Honey may be of good heavy body, what bee-keepers call "well ripened," weighing sometimes 12 pounds to the gallon, or it may be quite thin. It may also be granulated, or candied, more solid than lard. It may be almost as colorless as water, and it may be as black as the darkest molasses. The flavor of honey varies according to the flower from which it is obtained. It would be impossible to describe in words the flavors of the different

honeys. You may easily distinguish the odor of a rose from that of a carnation, but you might find it difficult to describe them in words so that a novice smelling them for the first time could tell which was which. But the different flavors in honey are just as distinct as the odors in flowers. Among the lighter-colored honeys are white clover, linden (or basswood), sage, sweet clover, alfalfa, willow-herb, horsemint, etc., and among the darker are found heartsease, magnolia (or poplar), buckwheat, etc.

Tastes differ as to honey as well as in all other things. White clover is so generally preferred to buckwheat with its very dark color and strongly marked flavor that buckwheat honey always rules lower in price than white clover, yet there are some who prefer buckwheat to any other honey. Somewhat fortunately, one generally prefers the honey to which he is most accustomed. A Californian thinks nothing equals white sage, while a Pennsylvanian thinks white clover far ahead.

In these days of prevailing adulteration, when so often "things are not what they seem," it is a comfort to know that, when one buys comb honey, he may know without question he is getting the genuine article. The silly stories seen from time to time in the papers about artificial combs being filled with glucose, and deftly sealed over with a hot iron, have not the slightest foundation in fact. For years there has been a standing offer by one whose financial responsibility is unquestioned, of \$1000 for a single pound of comb honey made without the intervention of bees. The offer remains untaken, and will probably always remain

so, for the highest art of man can never compass such delicate workmanship as the skill of the bee accomplishes.

With extracted honey the case is different. Unfortunately a good deal of liquid honey put up by manufacturers, especially of syrups, is adulterated. They buy up dark honeys, and put in 50 or 75 per cent of glucose, and then the same is labeled "Pure Honey," "Farm Honey," and scores of other innocent names. Dark honey is preferred because it will "stand more glucose." To give the mixture an appearance of honesty—particularly so if the stuff is put up in glass—a piece of comb is put in sometimes. The comb in this case may be entirely dry, or pieces of broken comb honey such as the mixers buy of commission houses. But not all broken comb honey should be classed as adulterated. In the South especially, honey is sometimes put up this way by producers. As a general rule, extracted honey is pure if it bears the label of some one honey-producer; but be a little cautious about purchasing that which either has no label on it, or else, if labeled, bears no name or address of some responsible person or firm.

The average housekeeper will put honey in the cellar for safe keeping—about the worst place possible. **Care of Honey.** Honey readily attracts moisture, and in the cellar extracted honey will become thin, and in time may sour; and with comb honey the case is still worse, for the appearance as well as the quality is changed. The beautiful white surface becomes watery and darkened, drops of water ooze through the cappings, and weep over the surface. Instead of keeping honey in a

place moist and cool, keep it dry and warm, even hot. It will not hurt to be in a temperature of even 100°. Where salt will keep dry is a good place for honey. Few places are better than the kitchen cupboard. Up in a hot garret next the roof is a good place, and if it has had enough hot days there through the summer it will stand the freezing of winter; for under ordinary circumstances freezing cracks the combs, and hastens granulation or candying.

If honey be kept for any length of time, especially during cold weather, it has a tendency to change from its original beautiful liquid transparency to a white semi-solid granular condition; and when it is thus changed, bee-keepers call it "granulated" or "candied." Sometimes it is candied so solid that when in a barrel the head has to be taken off, and the honey removed by the spade. But its candied condition is not to be taken as an evidence against its genuineness or purity, but rather to the contrary, for the adulterated honeys are less liable to candy than those that are pure. Some prefer honey in the candied state; but the majority prefer liquid.

It is an easy matter to restore it to its former liquid condition. Simply keep it in hot water long enough, but not too hot. If heated above 160° there is danger of spoiling the color and ruining the flavor. Remember that honey contains the most delicate of all flavors—that of the flowers from which it is taken. A good way is to set the vessel containing the honey inside another vessel containing hot water, not allowing the bottom of the one

to rest directly on the bottom of the other, but putting a bit of shingle or something of the kind between. Let it stand on the stove, but do not let the water boil. It may take half a day or longer to melt the honey. If the honey is set directly on the reservoir of a cook-stove it will be all right in a few days. In time it will granulate again, when it must again be melted.

A. I. Root says, "Honey that has been kept some time, especially if it is not very ripe and thick, may need sterilizing before it is fit for those who have weak digestion. Dr. Kellogg, of Battle Creek, Mich., strongly emphasizes this point. All that is necessary is to heat the honey as above. If it is inclined to be rather thin at moderate temperatures, set it in a back oven and let it ripen slowly until it is so thick that you may turn over a spoonful without spilling the contents. Such honey will almost always be found wholesome and more easily digested than any form of sugar."

Aside from its use in an unchanged state as a direct accompaniment of bread or biscuits, honey is used by bakers in manufacturing some of their choicest wares. An advantage in using honey for any thing in the line of cake is its keeping qualities. Even if the cake should become dry, close it up in a bread-can for a time and its freshness will return.

Honey is used in medicines, and is the base of many of the cough cures and salves. For candy, honey is far more wholesome than cane sugar.

Very many of the so-called honey cooking-recipes are apt to be worse than nothing; for when the ingredients are put

together and made into a cake, the result is simply vile. The recipes given below have been tested, and every one is guaranteed to be good. The honey-jumble recipe, for instance, is especially good, as is the honey-cake recipe by Maria Fraser.

### Honey Cooking-recipes.

**Honey-gems.**—2 qts. flour, 3 tablespoonfuls melted lard,  $\frac{3}{4}$  pint honey,  $\frac{1}{2}$  pt. molasses, 4 heaping tablespoonfuls brown sugar,  $\frac{1}{2}$  level tablespoonfuls soda, 1 level teaspoonful salt,  $\frac{1}{2}$  pint water,  $\frac{1}{2}$  teaspoonful extract vanilla.

**Honey-jumbles.**—2 quarts flour, 3 tablespoonfuls melted lard, 1 pt. honey,  $\frac{3}{4}$  pt. molasses,  $\frac{1}{2}$  level tablespoonfuls soda, 1 level teaspoonful salt,  $\frac{1}{2}$  pint water,  $\frac{1}{2}$  teaspoonful vanilla.

These jumbles and the gems immediately preceding are from recipes used by bakeries and confectioneries on a large scale, one firm in Wisconsin alone using ten tons of honey annually in their manufacture.

**Honey-cake or Cookies** without sugar or molasses. Two cups honey; one cup butter; four eggs (mix well); one cup buttermilk (mix); one good quart flour; one level teaspoonful soda or saleratus. If it is too thin, stir in a little more flour. If too thin it will fall. It does not want to be as thin as sugar-cake. I use very thick honey. Be sure to use the same cup for measure. Be sure to mix the honey, eggs, and butter well together. You can make it richer if you like by using clabbered cream instead of buttermilk. Bake in a rather slow oven, as it burns very easily. To make the cookies, use a little more flour, so that they will roll out well without sticking to the board. Any kind of flavoring will do. I use ground orange-peel mixed soft. It makes a very nice ginger-bread.

Maria Fraser.

**Howell Honey-cake.**—(It is a hard cake). Take 6 lbs. flour, 3 lbs. honey,  $1\frac{1}{2}$  lbs. sugar,  $1\frac{1}{2}$  lbs. butter, 6 eggs,  $\frac{1}{2}$  oz. saleratus; ginger to your taste. Directions for mixing.—Have the flour in a pan or tray. Pack a cavity in the center. Beat the honey and yolks of eggs together well. Beat the butter and sugar to cream, and put into the cavity in the flour; then add the honey and yolks of the eggs. Mix well with the hand, adding a little at a time, during the mixing, the  $\frac{1}{2}$  oz. saleratus dissolved in boiling water until it is all in. Add the ginger, and finally add the whites of the 6 eggs, well beaten. Mix well with the hand to a

smooth dough. Divide the dough into 7 equal parts, and roll out like gingerbread. Bake in ordinary square pans made for pies; from 10x14 tin. After putting into the pans, mark off the top in  $\frac{1}{2}$ -inch strips with something sharp. Bake an hour in a moderate oven. Be careful not to burn, but bake well. Dissolve sugar to glaze over top of cake. To keep the cake, stand on end in an oak tub, tin can, or stone crock—crock is best. Stand the cards up so the flat sides will not touch each other. Cover tight. Keep in a cool dry place. Don't use until three months old at least. The cake improves with age, and will keep good as long as you will let it. I find any cake sweetened with honey does not dry out like sugar or molasses cake, and age improves or develops the honey flavor.

E. D. Howell.

**Aikin's Honey-cookies.**—1 teacupful extracted honey, 1 pint sour cream, scant teaspoonful soda, flavoring if desired, flour to make a soft dough.

**Soft Honey-cake.**—1 cup butter, 2 cups honey, 2 eggs, 1 cup sour milk, 2 teaspoonfuls soda, 1 teaspoonful ginger, 1 teaspoonful cinnamon, 4 cups flour.—Chalon Fowls.

**Ginger Honey-cake.**—1 cup honey,  $\frac{1}{2}$  cup butter, or drippings, 1 tablespoonful boiled cider, in half a cup of hot water (or  $\frac{1}{2}$  cup sour milk will do instead). Warm these ingredients together, and then add 1 tablespoonful ginger and 1 teaspoonful soda sifted in with flour enough to make a soft batter. Bake in a flat pan.—Chalon Fowls.

**Fowls' Honey Fruit-cake.**— $\frac{1}{2}$  cup butter,  $\frac{3}{4}$  cup honey,  $\frac{1}{2}$  cup apple jelly or boiled cider, 2 eggs well beaten, 1 teaspoonful soda, 1 teaspoonful each of cinnamon, cloves, and nutmeg, 1 teacupful each of raisins and dried currants. Warm the butter, honey, and apple jelly slightly, add the beaten eggs, then the soda dissolved in a little warm water; add spices and flour enough to make a stiff batter, then stir in the fruit and bake in a slow oven. Keep in a covered jar several weeks before using.

**Muth's Honey-cakes.**—1 gallon honey (dark honey is best), 15 eggs, 3 lbs. sugar (a little more honey in its place may be better),  $1\frac{1}{2}$  oz. baking-soda, 2 oz. ammonia, 2 lbs. almonds chopped up, 2 lbs. citron, 4 oz. cinnamon, 2 oz. cloves, 2 oz. mace, 18 lbs. flour. Let the honey come almost to a boil; then let it cool off, and add the other ingredients. Cut out and bake. The cakes are to be frosted afterward with sugar and white of eggs.

**Fowls' Honey Layer-cake.**  $\frac{3}{4}$  cup butter, 1 cup honey, 3 eggs beaten,  $\frac{1}{2}$  cup milk. Cream the honey

and butter together, then add the eggs and milk. Then add 2 cups flour containing  $1\frac{1}{2}$  teaspoonfuls baking powder previously stirred in. Then stir in flour to make a stiff batter. Bake in jelly-tins. When the cakes are cold, take finely flavored candied honey, and after creaming it spread between layers.

**Fowls' Honey-cookies.**—3 teaspoonfuls soda dissolved in 2 cups warm honey, 1 cup shortening containing salt, 2 teaspoonfuls ginger, 1 cup hot water, flour sufficient to roll.

**Honey Nut-cakes.**—8 cups sugar, 2 cups honey, 4 cups milk or water, 1 lb. almonds, 1 lb. English walnuts, 3 cents' worth each of candied lemon and orange peel, 5 cents' worth citron (the last three cut fine), 2 large tablespoonfuls soda, 2 teaspoonfuls cinnamon, 2 teaspoonfuls ground cloves. Put the milk, sugar, and honey on the stove, to boil 15 minutes; skim off the scum, and take from the stove. Put in the nuts, spices, and candied fruit. Stir in as much flour as can be done with a spoon. Set away to cool, then mix in the soda (don't make the dough too stiff). Cover up and let stand over night, then work in flour enough to make a stiff dough. Bake when you get ready. It is well to let it stand a few days, as it will not stick so badly. Roll out a little thicker than a common cookie, cut in any shape you like.

This recipe originated in Germany, is old and tried, and the cake will keep a year or more.—Mrs. E. Smith.

**Honey-drop Cakes.**—1 cup honey;  $\frac{1}{2}$  cup sugar;  $\frac{1}{2}$  cup butter or lard;  $\frac{1}{2}$  cup sour milk; 1 egg;  $\frac{1}{2}$  tablespoonful soda; 4 cups sifted flour.

**Honey Shortcake.**—3 cups flour, 2 teaspoonfuls baking-powder, 1 teaspoonful salt,  $\frac{1}{2}$  cup shortening,  $1\frac{1}{2}$  cups sweet milk. Roll quickly, and bake in a hot oven. When done, split the cake and spread the lower half thinly with butter, and the upper half with  $\frac{1}{2}$  pound of the best-flavored honey. (Candied honey is preferred. If too hard to spread well it should be slightly warmed or creamed with a knife.) Let it stand a few minutes, and the honey will melt gradually, and the flavor will permeate all through the cake. To be eaten with milk.

**Honey Tea-cake.**—1 cup honey,  $\frac{1}{2}$  cup sour cream, 2 eggs,  $\frac{1}{2}$  cup butter, 2 cups flour, scant  $\frac{1}{2}$  teaspoonful soda, 1 tablespoonful cream of tartar. Bake 30 minutes in a moderate oven.—Miss M. Chandler.

**Honey Ginger-snaps.**—1 pint honey,  $\frac{1}{4}$  lb. butter, 2 teaspoonfuls ginger. Boil together a few minutes, and when nearly cold put in flour until it is stiff. Roll out thin, and bake quickly.

**Honey Fruit-cake.**— $1\frac{1}{2}$  cups honey,  $\frac{1}{2}$  cup butter,  $\frac{1}{2}$  cup sweet milk, 2 eggs well beaten, 3 cups flour, 2 teaspoonfuls baking-powder, 2 cups raisins, 1 teaspoonful each of cloves and cinnamon.

**Honey Popcorn Balls.**—Take 1 pint extracted honey; put it into an iron frying-pan, and boil until very thick; then stir in freshly popped corn, and when cool mold into balls. These will specially delight the children.

**Honey Caramels.**—1 cup extracted honey of best flavor, 1 cup granulated sugar, 3 tablespoonfuls sweet cream or milk. Boil to "soft crack," or until it hardens when dropped into cold water, but not too brittle—just so it will form into a soft ball when taken in the fingers. Pour into a greased dish, stirring in a teaspoonful extract of vanilla just before taking off. Let it be  $\frac{1}{2}$  or  $\frac{3}{4}$  inch deep in the dish; and as it cools, cut in squares and wrap each square in paraffine paper, such as grocers wrap butter in. To make chocolate caramels, add to the foregoing 1 tablespoonful melted chocolate, just before taking off the stove, stirring it in well. For chocolate caramels it is not so important that the honey be of best quality.—C. C. Miller.

**Honey Apple-butter.**—One gallon good cooking-apples; 1 quart honey; 1 quart honey vinegar; 1 heaping teaspoonful ground cinnamon. Cook several hours, stirring often to prevent burning. If the vinegar is very strong, use part water.

Mrs. R. C. Aikin.

**Honey and Tar Cough-cure.**—Put 1 tablespoonful liquid tar into a shallow tin dish and place it in boiling water until the tar is hot. To this add a pint of extracted honey and stir well for half an hour, adding to it a level teaspoonful pulverized borax. Keep well corked in a bottle. Dose, teaspoonful every one, two, or three hours, according to severity of cough.

**Summer Honey-drink.**—1 spoonful fruit juice and 1 spoonful honey in  $\frac{1}{2}$  glass water; stir in as much soda as will lie on a silver dime, and then stir in half as much tartaric acid, and drink at once.

Dairy butter, olive oil, and cotton-seed oil are most wholesome articles, and may be substituted for lard in any of the above receipts.

## Linn County Nurseries and Apiaries

Propagators and growers of all kinds of Nursery Stock especially suited to Middlewest and Northwest. Producers of Comb and Extracted Honey for Trade use. Write for prices and sample of Extracted Honey, which will be sent by mail on receipt of ten cents, when amount may be deducted from first order sent. Nursery catalog or copies of leaflet will be sent free to any address.

**SNYDER BROS., Prop'**  
CENTER POINT, IOWA

**Cumberland.** Very large, firm, sweet and very good; splendid for any purpose; very vigorous, healthy and hardy. A little earlier than Gregg; one of the best varieties. 5c each; 50c per dozen; \$3.00 per 100; \$25.00 per 1,000.

**Plum Farmer.** Large to very large, sweet and juicy, but firm. Medium size, early and very productive. Splendid for every purpose; the most vigorous, healthy and hardy of any variety we have tested; a new and most promising variety. 10c each; 75c per dozen; \$3.00 per 100; \$25.00 per 1,000.

### Purple Cap Varieties

**Cardinal.** Large, dark red, firm; with an agreeable, rich flavor which develops to perfection in cooking. There is no better variety for canning or jam; it ripens rather late. The canes are very strong and vigorous, with few thorns, and very free from diseases. One of the hardiest and most productive of all Raspberries. 5c each; 50c per dozen; \$3.50 per 100.

**Haymaker.** A rival of the Cardinal; large, dark red, firm, excellent; very vigorous and hardy. Claimed to be the most profitable Raspberry on earth. 5c each; 50c per dozen; \$3.50 per 100.



CUMBERLAND

### Red Varieties

These multiply by suckers and sprout all over the ground near them, so they must be confined to narrow rows by running the plow through frequently during the growing season. With proper care and cultivation they excel all other Raspberries in quality, and equal them in productiveness.

**King.** Generally considered the best early Red Raspberry. Berries large, bright red, moderately firm. It ripens with the earliest black variety. Canes are hardy, productive and vigorous. 5c each; 50c per dozen; \$3.00 per 100.

**Loudon.** Very large, beautiful dark crimson, splendid quality, and very productive. It endures our oldest winters without protection. One of the very best of the Red Raspberries. Same price as King.

**Colorado Ironclad.** Medium to large, bright red, sweet and delicious, but too soft for market use. Canes are very healthy, vigorous and hardy. A splendid variety for home use. Ripens with King. 5c each; 50c per dozen; \$2.50 per 100.

### Juneberries

**Improved Dwarf.** This is one of our most wholesome fruits. A delicious fruit to eat out of hand or for pies and canning. Perfectly hardy and never fails to bear. Fruit resembles the Blueberry and is borne in attractive clusters. Should be in every garden. 20c each; \$1.80 per dozen.

### Blackberries

Practically the same general directions apply as for the raspberries. Our plants are root-cutting plants, and are worth tenfold more to the fruit grower than sucker plants from old, exhausted patches; be sure you get the genuine nursery propagated plants and you will succeed. The Blackberry is a stronger bush than the raspberry and should be planted in rows 8 feet apart, and from 2 to 3 feet apart in a row; otherwise, its culture is the same as for the raspberries.

**Snyder.** This is the old standby which succeeds wherever a Blackberry can be grown. For some time we have been selecting a superior strain of this variety which is in every way better than the common Snyder. This year for the first time we offer them to our patrons. Extremely hardy, enormously productive, medium size; no hard, sour core; sweet and juicy. 5c each; 50c per dozen; \$3.00 per 100; \$20.00 per 1,000.

## Dewberries

Great care and peculiar treatment are necessary for successful Dewberry growing. They do best on high, well-drained clay soil, but can be grown with reasonable success on almost any good soil. Plant in rows 7 feet apart and 4 to 5 feet in the row. Begin pruning by pinching out the ends of the canes as soon as they reach a length of 3 feet, and of the laterals when they reach 2 feet. In the fall prune away all but six of the best canes to each hill and these canes to a length of 4 to 5 feet. Press them closely to the ground lengthwise of the row and cover with three inches of forest leaves or by throwing a light furrow upon them. Uncover in spring when all danger of freezing is past, and tie to a wire trellis.

**Lucretia.** Claimed to be the best of the Blackberry family, and as productive as any. The berries are far larger and incomparably better than any blackberry, and of unequalled excellence; soft, sweet and luscious throughout; of brightest, glossy black color. The Lucretia Dewberry has received the endorsement and praise from the best horticulturists in the country. Its eminent success in all soils, from Maine to California, from Minnesota to Florida, is something phenomenal in small fruit culture. Its trailing habit renders it less liable to winter-kill. 10c each; 75c per dozen; \$3.00 per 100; \$20.00 per 1,000.

## Strawberries

No one owning a home, or for that matter one who is renting for a term of years, can put a little money to a better use than to buy three or four hundred plants of the standard variety of Strawberry. Give them the proper care, and a good sized family can hardly use all the fruit they will produce the next season after planting. Nothing will bring quicker and greater satisfaction to the planter, more keen delight to his children, or lessen the burdens of his good wife in providing for the table than a well kept Strawberry bed.

The best time to plant Strawberries is in early spring and on fertile new soil, or old land brought to a high state of cultivation. If horses are to be used in cultivating, plant in rows  $3\frac{1}{2}$  to 4 feet apart, and 1 to 3 feet in the row, but for hand culture, 1 to 2 feet will answer.

Here is the plan we have found the most profitable and always gives large, fine fruit. Set plants as early in spring as season will permit; pinch off all the blossom stalks which appear the first season; this throws all the strength into a good stand of new plants for the next year. About November 1st cover with rye or wheat straw just deep enough so they can come up through it; if too much is on,

remove a part of it when spring comes and leave the rest of it to keep the berries off the soil. Now dig enough of these new plants to start a new bed, which treat as before, and as soon as the crop is off plow the old bed under. Keep this up year after year and you will have the finest fruit that can be produced.

Our plants are strictly nursery grown and will give far greater satisfaction than can possibly be obtained with plants taken from an old fruiting bed. Such plants are not worth the digging.

Out of a long list of more than thirty varieties which we used to catalogue we now retain but one, the **Senator Dunlap**—a product of the Mississippi Valley and especially adapted to it. Probably no other variety of any fruit was ever introduced which gave as universal satisfaction as this one. Every claim made for it has been more than met. Some of the claims that were made for it, and which have been tested are:

(1.) A clean, healthy and vigorous plant, capable of resisting intense cold, and severe drought, and making an abundance of good and strong plants when almost every other variety fails.

(2.) A long-blooming season, with an abundance of pollen, making it one of the best self-fertilizers, and also the best for fertilizing pistillate varieties.

(3.) A long-fruited season—coming in with the medium early, and holding out when most others are gone, developing and ripening all of its berries.

(4.) Uniformly large, well-shaped, dark bright red, glossy berries with a very large bright green calyx. Berries of the finest quality and flavor.

(5.) A good keeper with long-keeping qualities, and attractive appearance, making it more salable than most others.

(6.) A good canner, retaining its bright red color in the cans. We obtained our breeding stock direct from the introducer. Our plants are pure, no other variety being grown upon our grounds, and the best than can be produced. 25c per dozen; \$1.00 per 100; \$3.00 per 500; \$5.00 per 1,000.

## Asparagus

Asparagus is one of the earliest and finest of spring vegetables; so easy of culture, profitable and wholesome, that every family garden should have a very liberal supply.

Choose well-drained fertile soil, work it up fine and deep, and place the plants in rows 4 feet apart and 8 inches apart in the row; spread out the roots in a trench made deep enough to permit their crowns to be covered with 3 or 4 inches of mellow soil; give the rows a liberal dressing of well rotted manure at least once each year, and fifteen pounds of salt per rod length early every spring. Do no cutting the first season. Any or all of the following described varieties will give entire satisfaction if managed as above.

**Columbian Mammoth White.** A distinct variety of strong, vigorous growth, producing very large white shoots that in favorable weather remain white until 3 or 4 inches high, or as long as fit for use. Market gardeners and those growing for canners will find this a very profitable variety. 2-year roots, 50c per dozen; 75c per 25; \$1.25 per 50; \$2.00 per 100.

**Palmetto.** A very early variety extensively grown for early markets; even, regular size, of excellent quality, and considered by many as the best variety in cultivation. Prices same as above.

**Conover's Colossal.** A mammoth variety of vigorous growth; tender and excellent quality; sends up fifteen to twenty sprouts each year, one inch in diameter; color deep green, and crown very close. Prices same as above.

**Barr's Mammoth.** A variety that comes highly praised. Said to be nearly double the size, and much more productive than Conover's Colossal. Prices same as above.

## Rhubarb or Pie Plant

**Linnaeus.** Large, early, tender and fine. 10c each; \$1.00 per dozen; \$6.00 per 100.

**Victoria.** A large variety of excellent quality. Same price as Linnaeus.

## Evergreens

The following are the best kind of Evergreens to plant in this state for shelter belts and ornament. There is nothing which will add more to the value of a farm or more comfort to the occupants than a well arranged plantation of Evergreens. Their shade is cool and refreshing in summer, and a belt of them is the greatest barrier against winter blasts which can be provided. Our Evergreens have been two or three times transplanted; are heavily rooted, stocky, and thrifty plants. Failure with Evergreens is usually due to careless handling, planting or cultivation.

### Directions for Planting and Caring for Evergreens.

**Soil.** Any soil that will grow corn or garden vegetables is suitable for Evergreens.

**Planting.** Dig holes large, so that the roots are not crowded, using the top soil in the bottom of the hole and arranging the roots carefully, working the fine soil around and among the roots with your hand and shaking the tree occasionally as the filling is going on, to settle the soil. When the roots are well covered, hold the tree upright, treading the soil very firmly around and over them with the feet. When this is done you have a basin or hole around the tree that will hold half a pail of water; fill this basin with water and in half an hour or so, after the water has soaked away, fill the basin with good, mellow soil without much tramping. Evergreen roots must always be very carefully protected from the sun and dry air; they should be dipped in a paste of mud, or at least of water before placing in the hole.



MUGHO PINE

**Watering.** The month of August is the critical period for newly planted Evergreens, for during this month, unlike deciduous trees, Evergreens make a new root growth, which require moisture. If rains have not been plenty the trees should be watered. Make a basin around each tree by pulling away the soil with a hoe, and water as described above. If the season is very

hot and dry, this watering should be commenced the latter part of July and continued through the period of drought.

**Cultivation.** Thorough cultivation is very essential to the growth of vegetation of all kinds and nothing appreciates it more than Evergreens. They should be cultivated at least once a week up to August 1st, when a good mulching of partially rotted hay or straw may be given. Care should be taken not to use green manure, as it is detrimental.

**Seedlings.** The largest sizes of seedlings may be planted and treated as above; smaller sizes should be planted in well prepared beds with a dibble, and shaded the first season.

**Windbreaks.** Plant Spruces, Firs and Arborvitae in single rows, 4 to 6 feet apart; double rows, 10 feet apart. Scotch and Austrian Pines; single row, 8 feet, double row, 10 to 12 feet. White Pine; single row, 8 feet, double row, 12 to 14 feet.

**Hedges.** Arborvitae, 10 to 18 inches, 15 inches apart; 18 to 24 inches, 18 inches apart; 2 feet and larger, 2 feet apart. Spruce and Cedar, 2 to 4 feet apart, according to size.

## Descriptions

**White Pine** (*Pinus strobus*).—One of the best, largest and longest lived Evergreens. The foliage is a warm light green, often with a bluish tinge. Leaves are in fives, 3 or 4 inches long, very soft and delicately fragrant. It does not grow as rapidly the first few years as some, but after getting well started, it is the most rapid grower of all Evergreens. It adapts itself to a great variety of soils; it is one of the best for shelter, and the best large growing Evergreen to plant near buildings or along streets to be trimmed up for shade. But few, if any other trees, unite so many elements of beauty and utility as our native White Pine. 4 to 5 feet, 60c each, \$5.50 for 10; 3 to 4 feet, 50c each, \$4.50 for 10, \$40 per 100; 2 to 3 feet, 40c each, \$3.50 for 10, \$30 per 100; 18 to 24 inches, 30c each, \$2.50 for 10, \$20 per 100.

**Western Bull Pine or Western Yellow Pine** (*Pinus ponderosa*).—A heavy wooded pine, and a rapid grower, forming a tree of great size. Its foliage is very long, coarse and dark green, which makes it valuable for landscape purposes as well as wind-breaks. Well adapted to dry, windy and exposed conditions, and is doing splendidly on our light, dry, sandy soil. Undoubtedly the best Pine for Western Iowa or further west. 18 to 24 inches, 45c each, \$2.50 for 10, \$20.00 per 100; 12 to 18 inches, 25c each, \$1.50 per 10, \$14.00 per 100.

**Scotch Pine** (*Pinus sylvestris*).—A rapid-growing, hardy variety, with stout, erect shoots and green foliage. Good for shelter or landscape planting. It is one of the hardiest Evergreens, and adapts itself readily to the trying climate of the North and Northwest. It also thrives in the Southwest or West. It is rather short lived and cannot be depended upon for more than twenty-five or thirty years. 2 to 3 feet, 30c each, \$2.75 per 10, \$25.00 per 100; 18 to 24 inches, 25c each, \$2.00 for 10, \$18.00 per 100; 12 to 18 inches, 20c each, \$1.75 per 10, \$15.00 per 100.

**Mugho or Dwarf Mountain Pine.** This unique Alpine species forms a very compact, dark green, dome-shaped bush, broader than high. It is very valuable for planting on lawns, terrace banks, hillsides, rockeries, etc. 12 to 18 inches broad, 50c each; 18 to 24 inches, 60c each.

**Balsam Fir** (*Picea balsamea*).—A well known popular tree; very handsome while young, assuming an upright, strictly conical form. Leaves dark green above, silvery beneath; retains its color throughout the winter; grows rapidly, and is desirable in every way, but should be planted where there is plenty of moisture. 4 to 5 feet, 75c each; 3 to 4 feet, 50c each; 2 to 3 feet, 40c each; 18 to 24 inches, 30c each.

**Concolor Fir—White or Silver Fir** (*Abies concolor*).—This evergreen is of the rarest beauty; its beautiful silvery green foliage is the same the year round. It is a good grower, and makes a large tree. It does best where somewhat protected from severe southwest or west winds and sun. 3 to 4 feet, \$3.00; 2 to 3 feet, \$2.50; 12 to 18 inches, \$1.00.

**American White Spruce** (*Picea alba*).—A pyramidal tree of dense growth, with light silvery green foliage. A longer lived, more compact, and in all respects a better tree than Norway Spruce. One of the best for general use, and very fine for lawn planting. 2 to 3 feet, 50c each, \$4.50 for 10; 18 to 24 inches, 40c each, \$3.00 for 10; 12 to 18 inches, 30c each, \$2.50 for 10.

**Black Hills Spruce.** A strain of the White Spruce; native to the Black Hills. Slower grown, more dense, and better colored than White Spruce. Some specimens rival Colorado Blue Spruce in color. One of the hardiest, and easiest to transplant of all the Spruces. 3½ feet, \$1.25 each; 3 feet, \$1 each, \$9 for 10; 2½ feet, 85c each, \$7.50 for 10; 2 feet, 65c each, \$5.50 for 10; 18 to 24 inches, 50c each, \$4.50 for 10, \$40 per 100; 12 to 18 inches, 40c each, \$3.50 for 10, \$30 per 100; 8 to 12 inches, 30c each, \$2.50 for 10, \$20 per 100.

**Colorado Blue Spruce or Silver Spruce** (*Picea pungens*).—This Evergreen grows over a greater range of territory than any other member of the Evergreen family. Its home is in the clefts and recesses of the Rocky Mountains, where it grows on barren soils, exposed to the roughest weather. It heads the family of Spruces for hardiness and longevity, and is the most ornamental of the Evergreen family. Seedlings vary from dark green to silvery blue; no description can do it justice; it has to be seen to be appreciated. These grafted specimens are the purest blue it is possible to produce. Select blue specimens, \$1 per ft.; green or bluish green, 60c per ft.

**Koster's Grafted Blue Spruce** \$1.50 per ft.

**Norway Spruce** (*Abies excelsa*).—A very popular variety from Europe. It has been more extensively planted in this country than any other Evergreen. It is a rapid grower, easy to transplant, and adapted to a great variety of soils, but rather short lived. 2 to 3 feet, 40c each, \$3 for 10, \$25 per 100; 18 to 24 inches, 30c each, \$2 for 10, \$17.50 per 100; 12 to 18 inches, 20c each, \$1.50 for 10, \$12.50 per 100.

**Virginia Juniper** (Red Cedar).—A well known American tree which varies much in habit and color of foliage. It succeeds well on the western plains and dry, sandy soils where other Evergreens fail. Very desirable for ornamental purposes, wind-breaks and hedges. 18 to 24 inches, 40c each, \$3.50 per 10; 12 to 18 inches, 25c each, \$2.25 for 10, \$20 per 100.

**American Arborvitae** (*Thuja occidentalis*).—One of the finest Evergreens for ornamental screens or hedges. It grows rapidly, soon forming the most beautiful hedge. It bears trimming to any extent desired, and plants which have been rendered compact by clipping retain the fresh green of their leaves in winter better than those with more open foliage. For an ornamental hedge, plants may be set 15 to 24 inches apart; for a screen to grow tall, plant about 2 to 3 feet apart. 2 to 3 feet, 40c each, \$3 for 10, \$25 per 100; 18 to 24 inches, 30c each, \$2 for 10, \$17.50 per 100; 12 to 18 inches, 20c each, \$1.75 for 10, \$12.50 per 100.

**Siberian Arborvitae.** One of the hardiest and most compact-growing Evergreens. It grows conical in shape and is very fine for specimens, groups or shearing. Foliage is a deep rich green. 18 to 24 inches, 50c each, \$4 for 10; 12 to 18 inches, 35c each, \$3 for 10.

**George Peabody Arborvitae.** One of the most beautiful members of the Arborvitae group. A vigorous, compact grower with beautiful golden green foliage. Hardy, and valuable to contrast with other colors. 8 to 12 inches, 35c each.

**Pyramidal Arborvitae.** A very compact, hardy Arborvitae which forms an elegant and very slender shaft of dark green. Superior to, and much harder than Irish Juniper. Much planted in cemeteries and is one of the most satisfactory of the ornamental Evergreens, with fine, bright green foliage, silvery underneath. Hardy, but requires moisture. 3 to 4 feet, \$1.50 each; 2 to 3 feet, \$1.25 each; 18 to 24 inches, 75c each; 12 to 18 inches, 60c each, \$5 for 10.

## Shade and Ornamental Trees

• **Carolina Poplar.** A pyramidal robust grower with glossy, serrated, bright green leaves; the most rapid grower of all trees. Valuable for quick results. Does not produce seeds or sprouts. Smoke and soot do not injure it. Perfectly hardy, and fine for shade. 10 to 12 feet, 35c each; 8 to 10 feet, 30c each; 6 to 8 feet, 25c each; 1-year, 2 to 3 feet, \$1.25 per dozen; 3 to 4 feet, \$1.50 per dozen.

**Sugar or Hard Maple.** One of the most beautiful shade or ornamental trees; when given plenty of room it forms a fine, round, dense head. In autumn its foliage presents varying and very beautiful colors as cold weather approaches, often becoming gorgeous. 10 to 12 feet, 75c each; 8 to 10 feet, 50c each; 7 to 8 feet, 45c each; 6 to 7 feet, 40c each; 5 to 6 feet, 35c each.

**Norway Maple.** A handsome tree of rapid growth, forming a wide, round head of spreading branches, with broad, dark green leaves. Strong, compact and vigorous. One of the very best for street, park or lawn. 10 to 12 feet, \$1.25 each; 8 to 10 feet, \$1 each, \$8 for 10; 5 to 6 feet, 60c each, \$5.00 for 10.

**Reitenbach's Norway Maple.** Beautiful and striking because of its rich changing foliage, which is soft green in the spring, purple in midsummer and purplish scarlet in autumn. Vigorous, pyramidal, and valuable for its coloring. 5 to 7 feet, \$1.00 each.

**Purple Norway Maple.** The gleaming red and purple tints of its young leaves and shoots appearing brightly with the delicate green of spring. At maturity they are purplish green, in autumn, tints and shades of gold. 6 to 8 feet, \$1.50 each; 5 to 6 feet, \$1.25 each; 4 to 5 feet, \$1.00 each.

**Catalpa Speciosa**—Hardy Catalpa. A very rapid growing, hardy tree, with large tropical appearing foliage, and large conspicuous bunches of blossoms in spring, followed by long bean-like pods. Desirable for shade and street trees. 7 to 8 feet, 40c each; 6 to 7 feet, 30c each; 5 to 6 feet, 25c each; 4 to 5 feet, 20c each.

**Catalpa Bungei** (Chinese Catalpa).—A curious dwarf which grows only 8 to 10 feet high and twice as broad. Ours are top-grafted on the Hardy Catalpa. It is almost as effective for lawns and terrace decorations as the more expensive Bay trees. Grafted fine heads, 6 to 8 feet, 1-year-old heads, \$1.00 each; 3-year heads, \$1.50 each.

**Magnolia Acuminata** (Cucumber Tree).—A hardy, pyramidal tree which bears large creamy yellow flowers in midsummer. The fruit cones are large and cucumber-shaped, turning red in autumn. 3 to 4 feet, 60c each.

**European White Birch.** A rapid-growing shade tree of beautiful form. Very desirable for street or lawn planting. By the time the tree is five or six years old the bark on the trunk and larger branches becomes a beautiful silvery white color. Entirely hardy in all parts of the Northwest. Makes elegant shade. 10 to 12 feet, 60c each; 8 to 10 feet, 50c each; 7 to 8 feet, 40c each; 5 to 7 feet, 35c each.

**Linden** (Basswood).—A very graceful and beautiful tree for planting on the lawn. Its leaves are moved with the least breath of air and show the white surface underneath. Its blossoms are delightfully fragrant, and the busy bee delights in their sweetness. 8 to 10 feet, 75c each; 7 to 8 feet, 50c each; 6 to 7 feet, 40c each; 5 to 6 feet, 30c each; 4 to 5 feet, 25c each; 3 to 4 feet, 20c each; 2 to 3 feet, 15c each; 1 to 2 feet, 10c each.

**White-Leaved Linden.** The leaves are green above and silvery beneath. The foliage is especially pretty when tossed about by the wind. 6 to 8 feet, 75c each.

**Russian Olive.** The only real hardy, deciduous tree with strictly silver foliage which thrives here. It is very valuable for landscape work to contrast with the green of other trees. Its blossoms are extremely fragrant; a small sprig will perfume an entire house. It attains only medium size, and bears pruning remarkably well. 6 to 8 feet, 40c each; 5 to 6 feet, 30c each; 4 to 5 feet, 25c each; 3 to 4 feet, 20c each.

**Horse Chestnut.** A very popular tree for street or lawn planting. Hardy; covered in early summer with magnificent spikes of flowers. 5 to 6 feet, 50c each.

**Pin Oak.** This is considered the most beautiful of all the oaks, and is certainly the most popular for street or park planting. As the tree grows the branches droop until the lower ones touch the ground, giving it a peculiar ovate outline. The leaves are deep green, glossy and finely divided, changing to orange and scarlet in the fall. The avenues of Pin Oaks in Fairmount Park, Philadelphia, are greatly admired. 7 to 8 feet, \$1 each; 6 to 7 feet, 75c each; 5 to 6 feet, 50c each.

**Chestnut Oak.** Native to dry situations; of tall and beautiful growth. The leaves are shaped like chestnuts. 4 to 5 feet, 75c each.

**Bechtel's Double-Flowering Crab.** A wild crab which produces masses of double rose-like flowers of a delicate pink color, and most delightful fragrance. Blooms while quite young and is as hardy as our common wild crab. 3 to 4 feet, 75c each.

**Mountain Ash, Oak-Leaved.** A handsome and hardy variety, with large and deeply lobed leaves; distinct and fine; covered in autumn with bright scarlet berries. 5 to 6 feet, 50c each; 4 to 5 feet, 35c each.

**Sycamore, American** (*Platanus occidentalis*).—A very rapid growing, spreading, native tree; always clean and healthy. One of the most desirable among our native trees for shade and street planting. 6 to 8 feet, first-class, 50c each; 5 to 6 feet, 40c each; 4 to 5 feet, 30c each.

**Ginkgo or Maidenhair Tree.** An ornamental tree, native of Japan. A very handsome, strange and striking tree, combining some of the characteristics of the Evergreens and deciduous trees. It is of medium height, fairly rapid in growth, and hardy. Its foliage resembles the Maidenhair fern, hence its name. A rare and interesting tree. 5 to 6 feet, 60c each; 6 to 8 feet, 75c each.

**White or American Elm.** One of the best shade or street trees. 4 to 5 feet, 20c each; 5 to 6 feet, 25c each; 6 to 7 feet, 30c each; 7 to 8 feet, 40c each; 8 to 10 feet, 50c each.



SYCAMORE



NORWAY MAPLE

**Soft Maple.** 5 to 6 feet, 25c each; 6 to 8 feet, 30c each; 8 to 10 feet, 35c each.

**Laurel Leaved Willow.** A hardy, broad-leaved willow, with a symmetrical, round top; leaves large, broad, very dark glossy green and of striking appearance. The most ornamental of the willows. Very hardy and thrifty. 5 to 6 feet, 40c each; 4 to 5 feet, 30c each; 3 to 4 feet, 25c each.

## Weeping Trees

**Birch, Cut-Leaved Weeping.** Unquestionably one of the most popular of all weeping or pendulous trees. Its tall, slender, yet vigorous growth, graceful drooping branches, white bark and delicately cut foliage present a combination of attractive characteristics rarely met with in a single tree. Entirely hardy; perfect, full-grown specimens are seen in Minnesota, where the mercury drops to 30 to 40 degrees below zero. 10 to 12 feet, \$1.50 each; 8 to 10 feet, \$1.25 each; 7 to 8 feet, \$1.00 each; 4 to 5 feet, 60c each.

**Camperdown Weeping Elm.** This forms one of the most picturesque drooping trees. It is of rank growth, the shoots often making a zigzag growth outward and downward of several feet in a single season. The leaves are large, dark green and glossy, and cover the tree. 2-year heads, \$1.50 each; 1-year heads, \$1.25 each.

**Teas' Weeping Mulberry.** One of the hardiest and most vigorous of the weeping trees. It forms a perfect umbrella-shaped head, with long, weeping branches which reach to the ground. Produces fruit the same as Russian Mulberry. 1-year heads, \$1.50 each; 2-year heads, \$2.00 each.

## Ornamental Shrubs and Flowering Plants

**Lilac.** Common purple. 4 to 5 feet, 25c each.

**Lilacs, Budded Varieties.** Nothing is more beautiful than a clump, hedge or screen of these, and they should go into every border. In many country dooryards the neglected lilacs continue to bloom with a fragrance and beauty that is unsurpassed by no other shrub. The following varieties are the most choice selections, and will give a succession of bloom for many days.

**Alphonse Lavalle.** Large panicles of double violet-blue flowers. 4 to 5 feet, 40c each.

**Belle De Nancy.** Double white flowers that are tinged with purple. 4 to 5 feet, 40c each.

**Frau Dammann.** One of the best; a free bloomer, with medium sized white flowers, borne in large panicles. 4 to 5 feet, 40c each.

**Mme. Abel Chatenay.** Pure white flowers in compact panicles. 4 to 5 feet, 40c each.

**President Grevy.** The individual flowers are very large and double; a beautiful blue in color. The panicles are larger than those of any other variety. 4 to 5 feet, 40c each.

**Senateur Volland.** A good variety, with double rosy-red flowers. 4 to 5 feet, 40c each.

**Ludwig Spaeth.** The single flowers are a very dark purple, and distinct from other kinds. 4 to 5 feet, 25c each.

**Tamarix.** This hardy and very beautiful shrub, of strong but slender upright growth, is clothed with foliage as light and feathery as that of the asparagus. Its delicate fringing flowers are borne in spikes; color, a warm shade of pink or red. Very ornamental at the back of shrubbery, and desirable for decorations and bouquets. 3 to 4 feet, 30c each.

**Snowball.** A well known shrub; producing its snowy white flowers in large balls or masses in May or June; for the best effect, trim into a round ball-shaped bush. 2 to 3 feet, 30c each.

**Hydrangea Paniculata Grandiflora.** A fine, hardy shrub which is very popular, easy to grow, and blooms the same year it is transplanted. The flowers are in immense panicles, creamy white at first, changing to pure white and turning pink and brownish with age. It blooms in August and continues through September. The flowers will be larger and finer if given good rich soil, and the plants cut back each spring fully one-half the past year's growth. 18 to 24 inches, 25c each; 2 to 3 feet, 35c each. Tree form, 2 to 3 feet, 75c each; 3 to 4 feet, \$1.00.

**Hydrangea Aborecens Grandiflora** (Hills of Snow.)—A new variety with large white flowers resembling Snowball. Flowers are produced continually from June until late August. 2 feet, 60c each.

**Mock Orange** (Syringa).—One of the most desirable shrubs. Flowers 1 inch to 2 inches in diameter; pure white, delightfully fragrant. It grows to a height of 8 or 10 feet, and blooms profusely in the spring. 2 to 3 feet, 25c each, Clump, \$1.00.

**Spireas.** Low-growing shrubs well adapted for hedges, shrubberies or single specimens on the lawn. Grow in almost any moderate moist soil and with very little care or attention.

**Spirea Anthony Waterer.** A charming small shrub, seldom growing higher than 2 to 3 feet. Its handsome trusses of crimson flowers are produced in great profusion from early spring until fall. Beautiful in clusters or in low hedge. 18 to 24 inches, 35c.

**Spirea Van Houttei.** The grandest of the Spireas. A perfectly hardy, strong grower and profuse bloomer. It has small delicate white blossoms, borne in clusters which almost cover the bush about June 1st. A handsome bush, even when not in bloom. Often called Bridal Wreath. Suitable for low screens, hedges or borders. 12 to 18 inches, 15c each, \$8.00 per 100; 18 to 24 inches, 20c each, \$12.00 per 100; 2 to 3 feet, 25c each, \$15.00 per 100; 3 to 4 feet, 30c each, \$20.00 per 100. Heavy clump, 75c each.

**California Privet.** These ideal hedge plants have such an array of good points that we can no longer spare them for hedges alone. They are moderately hardy, nearly evergreen, grow freely in all soils, have a dense neat habit, and bloom pro-



SPIREA VAN HOUTTEI

fusely. The flowers are white, fragrant, and borne in graceful racemes or clusters through June and July. The leaves are small, oval and glossy. 2 to 3 feet, 25c each, \$1.25 per dozen, \$10.00 per 100.

**Amoor Privet.** Hardier than California Privet, and is desirable for all purposes. 18 to 24 inches, 25c each, \$15.00 per 100.

**Berberis Thunbergii.** A perfectly hardy Japanese form which is unequalled for low hedges. Produces an abundance of white flowers in May and is all aglow with scarlet leaves and berries in the fall. 12 to 18 inches, 20c each, \$12.00 per 100; 18 to 24 inches, 25c each, \$17.50 for 100.

**Golden Glow.** A hardy perennial plant, growing 6 to 8 feet high; branching freely, and bearing on long graceful stems, hundreds of exquisite double blossoms of the brightest golden color, and as large as the Cactus Dahlia. Strong roots, 25c each.

**Yucca Filamentosa.** An interesting and tropical appearing plant which will endure any of our Northern winters and is therefore valuable for those localities where flowering plants are scarce. It is an evergreen perennial, throwing up in the middle of the summer flower-stalks 3 feet in height, bearing a profusion of creamy white, bell-shaped blossoms. One of the most beautiful plants for the lawn. 2-year plants, 50c each.

## Climbing Vines

**Trumpet Flower.** A splendid vine, vigorous, hardy, and a very rapid grower; well adapted for covering unsightly objects. The flowers are large, being fully 4 to 5 inches long and in clusters. 50c each.

**Wistaria.** A beautiful climber of rapid growth, often growing 15 or 20 feet in a season, and producing long, pendulous clusters of pale blue flowers about the size and shape of a bunch of grapes; sometimes gives second crop of flowers in the fall. 2-year plants, 50c each.

**Clematis Paniculata.** This remarkable flower blooms in September. It is one of the finest of hardy climbers, with handsome foliage, and of very vigorous, rapid growth. In late summer it produces dense sheets of medium sized, pure white flowers of the most pleasing fragrance, making a gorgeous sight. This is a new Japanese plant, perfectly hardy and finely adapted for covering any object. Strong, field-grown plants, 50c.

**Clematis Jackmani.** This is perhaps the best known of the Clematis. The plant is a free grower, and an abundant and successful bloomer, producing flowers until frost. Flowers are large and of an intense violet purple, remarkable for their velvety richness. It has no superior. July to October. Strong, field-grown plants, 75c each.

**Clematis Madame Edouard Andre (The Red Clematis).**—A hybrid of the popular Jackmani, which it resembles in freedom of bloom, vigorous growth and shape of flowers, but is a distinct carmine red in color. Strong, field-grown plants, 75c.

**Clematis Henryi.** The best large white variety; fine, large creamy white flowers. Strong grower, hardy, perpetual bloomer. Strong, field-grown plants, 75c.

**Ampelopsis Engelmanni (Engelman's Ivy).**—Not poisonous. Similar to our native Virginia Creeper, but is more dense, rapid growing, and clings readily to any smooth surface. A very desirable vine for covering all kinds of walls, tree-trunks, etc.; much hardier than Boston Ivy. 40c each.



AMPELOPSIS ENGELMANNI.

## Roses

Our bushes are all **STRONG, FIELD-GROWN, 2-YEAR-OLD** plants on their own roots, and are not to be compared to the cheap bushes often offered which are budded on short lived foreign stocks.

Plant them  $\frac{1}{2}$  inch deeper than they stood in the nursery and in the richest, best soil obtainable. Trim off nearly all the top and they will do much better than if it was left on. Use powdered sulphur for mildew, arsenical for eating insects and tobacco infusion or strong soap solution for lice.

### Climbing Roses

**Crimson Rambler.** A new Japanese rose, bearing numerous trusses of bright crimson flowers; a superb climber, very hardy, and free flowering. One of the best for training on walls, pillars and fences. It gives universal satisfaction. 50c each.

**Persian Yellow.** Perfectly hardy climber. Brightest yellow of all Roses; produces a great abundance of medium-sized flowers in June. 2-year, No. 1, 50c each.

**Prairie Queen.** An old, well known climber. Flowers double, bright pink, fading to nearly white. 35c each.

**Tausendschon** (Thousand Beauties).—A rapid growing, almost thornless climber of exceptional value and attractiveness. Its many flower clusters show every shade of rose and crimson, with white and yellow variegations. 75c each.

### Half-Climbing Roses

**Baltimore Belle.** Very double, white with pink blush. One of the best climbing roses, but must be protected in winter. 35c.

**Greville or Seven Sisters.** Large clusters with flowers varying from white to crimson. Luxuriant dark green foliage; perfectly hardy. 35c each.

### Hybrid Perpetual Roses

**American Beauty.** Rich rosy crimson, delightfully fragrant and a very free, continuous bloomer; vigorous, healthy and moderately hardy. One of the most satisfactory varieties to grow. 50c each.

**Baby Rambler.** Really a dwarf Crimson Rambler. A true perpetual bloomer, perfectly hardy, free from insects and diseases, and of easy culture. A mass of bloom every day from May until frost. It is useful for bedding, edging walks, driveways and for house culture, etc. 75c each.

**Frau Karl Druschki** (White American Beauty).—Pure white, large, fragrant, well formed, and very similar to American Beauty except in color. Very hardy and vigorous; by far the best white rose of all. 50c each.

**General Jacqueminot.** This may truthfully be called the rose for the million; a universal favorite. Bright scarlet, exceedingly rich and velvety. One of the hardiest. 35c each.

**Harrison Yellow.** A very bright yellow double rose, hardy and a profuse bloomer. 50c each.

**La France.** A very popular variety. Buds and flowers are of lovely form and of great size; exceedingly fragrant. Color fine silvery pink. It begins to bloom early and continues until frost. 50c each.

**Madame Plantier.** Pure white; produced in great abundance early in the season. An excellent hardy white rose. 35c each.

**Paul Neyron.** One of the very largest roses known, often measuring 5 inches in diameter; color bright rose, very fresh and pretty. A strong, healthy grower with clean, glossy foliage and one of the most prolific bloomers in the hybrid class. Young plants in nursery rows bloom almost without intermission from June until October. 35c each.



FRAU KARL DRUSCHKI



BABY RAMBLER

fragrant flowers of the Hybrid Perpetual. The flowers are large, double, very fragrant and of a delicate silvery pink. Vigorous and hardy without protection. 50c each.

## Peonies

The Herbaceous Peonies have long been great favorites among hardy plants, but the wonderful improvements wrought by the plant breeder in recent years makes them far more popular than ever. Many of the improved varieties rival the finest roses in fragrance and coloring, besides blooming earlier and being much larger.

Peonies do best in good, rich deep soil and a sunny situation, although they do well in partial shade. They are hardy in the far North and West, requiring no protection. Once planted and established they take but little care. The blossoms are often small or even single the first year after planting but increase in size and beauty each year. They should be planted in September or October if possible, but may

**Prince Camille De Rohan.** Very large, deep velvety crimson, almost black. Very fragrant. By all means include this in your collection. 50c each.

**Ulrich Brunner.** A splendid rose and one of the best of the class. Flowers very large, well formed, brilliant cherry red and highly fragrant; produced in great profusion. Vigorous, hardy and healthy. 50c each.

## Moss Roses

**Glory of Mosses.** Very heavily mossed; flowers glossy pink; fragrant. One of the best. 35c each.

**Luxembourg Moss.** Large, bright crimson. A very fine, luxuriant grower and a free bloomer. 35c each.

**White Moss.** Large, full double, pure white and very fragrant. Perfectly hardy. 35c each.

## Rugosas

**Rosa Rugosa.** Foliage shiny bright green; flowers single and very fragrant, bright rose color with yellow center. The leaves and buds are very beautiful. In time of winter it bears large bright red berries; requires no protection whatever and is well adapted for hedges. Strong, 2 and 3-year plants, 25c each.

**Conrad Ferdinand Meyer.** This variety has the ornamental foliage of the Rugosa and the beautiful



FESTIVA MAXIMA.

be planted in the spring. Plant about 3 inches below the surface in deeply worked, rich soil. If planted in the spring they may not bloom until the next spring.

We offer the following list of choice varieties at reasonable prices. If wanted in large quantities, please write for prices.

**Tecumseh.** Deep red; one of the largest and solidest of all the peonies. Very rare and a grand flower. \$1.50 each.

**Plutarch.** A satiny crimson; exceedingly brilliant and striking with a pond lily fragrance; a very charming flower. \$1.00 each.

**L'Esperance.** A beautiful rose-pink, fragrant, and an early bloomer; very fine for cut-flowers; one of the best. 50c.

**Andre Lauries.** Deep bright red, very double, and late. A grand flower which loves deep, rich soil. 25c.

**Marie Lemoine.** This flower fills all the requirements we demand of our favorites. It is as sweet as a rose. It opens slightly yellow, then fades to purest white. A wholesale bloomer; very winsome and attractive. Never leave this out of your collection. 50c.

**Francois Ortegat.** A very brilliant crimson,, producing a blaze of splendor, almost purple. It is a vigorous and striking flower, with a delightful spicy fragrance. No collection is complete without it. 50c.



MARIE LEMOINE

**Rubra Triumphans.** Fragrant flowers of brilliant crimson. It does not bloom as soon as some others; the plants seem to require age, but are worth waiting for. 30c.

**Grandiflora Rubra.** This is a very king among peonies, and one of the latest. It seems to hold itself in reserve, getting strength to put forth an exhibition of splendor. Its flowers are of an immense size, intense and glowing; you look at them and think the best has been in reserve until last, and yet it is hard to call any one the best in this procession of peonies which has passed during the season. 30c each.

**Richardson's Rubra.** Late; deep crimson with a purple shade. A grand, fragrant, full-orbed flower; one of the best. 75c.

**Festiva Maxima.** A large ball of white, with center petals dashed with red; an early bloomer and a splendid keeper. In great demand for cut-flowers, and is very popular everywhere. 75c each.

**Agnes Mary Kelway.** Sweetly fragrant, light rose guard, yellow petaloids, with rose tuft; a most lovely flower. 50c.

**Grandiflora Rosea.** Pink, and early. The outer and center petals are red, slightly fragrant. A prolific bloomer; robust and vigorous. 35c.



ALBA SULPHUREA

**Victoria Tricolor.** Rose pink and salmon. One of the most vigorous and prolific bloomers we have; fragrant and desirable. 25c each.

**The Bride.** A small, delicate, sweet flower; winsome, attractive and well named. 40c.

**Grandiflora Carnea Plena.** Vagiegated, robust, and a very free bloomer. Valuable for cut-flowers; a charming flower of medium season. 40c.

**Magnifica.** Large, delicate and fragrant; red, turning to pink. 35c.

**The Queen.** Single, large, white with cusion of gold. 35c.

**Golden Harvest.** Bluish white and canary yellow; sweetly fragrant; full bloomer, and better than many higher priced varieties. 75c.

**Reeves.** An immense flower and free bloomer; light rosy pink, center petals dashed with red. 30c.

**Madame Chaumy.** A light pink, perfect in form, and very fragrant. Does best in partial shade. 30c.

**Fragrans.** An excellent variety; late; deep rose. 25c.

**Alba Sulphurea.** White with yellow center. A fine flower and a favorite. 25c.

**Pottsii.** A splendid flower; deep crimson. One of the earliest. 30c.

## Hardy Perennial Phlox

No class of hardy plants is more desirable. They thrive almost anywhere with a little care, and are useful for borders about shrubbery and for groups. The flowers are very showy and brilliant, and last through a long season. In the last few years they have been wonderfully improved.

The following are some of the most choice varieties. Price, unless otherwise noted, 20c each, \$2.00 per dozen.

**Aphis.** Salmon, with violet eye; very tall.

**Coquelicot.** Pure scarlet, with deep crimson eye; medium. 35c each.

**Duqueschin.** Gray - blue, with starred crimson center; tall.

**Eclaireur.** Salmon and scarlet with crimson eye; medium.

**Henry Murger.** Very large, pure white with carmine center; tall. 35c each.

**Lothair.** Carmine-pink with crimson eye; medium.

**Pantheon.** The peerless pink. Very large; medium height.

**Pearl.** Pure white; late; tall.

**Princess Louise.** Snow white with rose-pink eye; small.

**The Queen.** Pure white; medium height.



PHLOX

## Fruit Tree Seedlings for Grafting

|                                                                    |                         |
|--------------------------------------------------------------------|-------------------------|
| Apple Seedlings, $\frac{3}{16}$ inch, and up, straight .....       | } Price on application. |
| Plum, native seedlings, $\frac{3}{16}$ inch and up .....           |                         |
| Plum, native seedlings, $\frac{1}{8}$ to $\frac{3}{16}$ inch ..... |                         |
| Plum, native seedlings, under $\frac{1}{8}$ inch .....             |                         |
| Pear, French seedlings, No. 1, $\frac{3}{16}$ and up .....         |                         |

## Forest Tree Seedlings

These are just the thing for starting hedges, screens, windbreaks and timber plantations. If wanted in large quantities, write for special prices.

No matter how valuable the land every farmer can make a wood-lot profitable. It can constitute the windbreak and at the same time furnish posts and repair material and fuel. There is much land along streams which might be planted to trees and would become very valuable instead of furnishing only poor pasture as it does now. The time is soon coming when good timber will be in great demand in this state.

Where planted for groves cultivated crops may be planted between the rows for several years. The land may be planted to corn and a seedling planted in the place of every alternate hill. In this way the seedlings will get the necessary cultivation.

|                                         | 100    | 1,000  |
|-----------------------------------------|--------|--------|
| Ash, American, 6 to 12 inches .....     | \$1.00 | \$6.00 |
| 12 to 18 inches .....                   | 1.25   | 9.00   |
| Box Elder, 4 to 6 inches .....          | 1.00   | 4.50   |
| 6 to 12 inches .....                    | 1.25   | 6.00   |
| 12 to 18 inches .....                   | 1.50   | 10.00  |
| Catalpa, Hardy, 8 to 12 inches .....    | 1.00   | 7.50   |
| 12 to 18 inches .....                   | 1.25   | 10.00  |
| 18 to 24 inches .....                   | 1.50   | 12.50  |
| 2 to 3 feet .....                       | 1.75   | 15.00  |
| Elm, White, 6 to 12 inches .....        | 1.50   | 6.00   |
| 12 to 18 inches .....                   | 1.75   | 7.50   |
| 18 to 24 inches .....                   | 2.00   | 10.00  |
| European Larch, 6 to 12 inches .....    | 3.00   |        |
| 12 to 15 inches .....                   | 5.00   |        |
| Honey Locust, 8 to 12 inches .....      | 1.25   | 7.50   |
| 12 to 15 inches .....                   | 1.50   | 10.00  |
| Mulberry, Russian, 6 to 12 inches ..... | .50    | 5.00   |
| 12 to 18 inches .....                   | .75    | 7.50   |
| 18 to 24 inches .....                   | 1.00   | 10.00  |
| Osage Orange, 6 to 12 inches .....      | .50    | 3.00   |
| 12 to 18 inches .....                   | .75    | 5.00   |
| Soft Maple, 6 to 12 inches .....        | .60    | 4.00   |
| 12 to 18 inches .....                   | .75    | 7.50   |
| 18 to 24 inches .....                   | 1.00   | 10.00  |
| Walnut, Black, 12 to 18 inches .....    | 1.50   | 15.00  |
| 18 to 24 inches .....                   | 2.00   | 20.00  |

**Soft Maple.** A very rapid growing tree, valuable for fuel and windbreaks. Plant 8 by 8 or 6 by 8 feet. Maple groves have yielded over \$10 per acre net annual returns at about twenty-five years after planting.

**Catalpa speciosa, or Hardy Catalpa.** We grow these from seed gathered from native-grown trees and know them to be of the hardy sort. Catalpa is one of the most valuable trees for posts and poles, a very rapid grower, reproduces very quickly from the stump and the wood is one of the most durable in the soil. Plant 8 by 8 in deep rich soil, let grow for two years then cut back to the ground and train up one sprout for straight thrifty bodies. They require good cultivation for several years.

**European Larch.** Has produced higher annual net returns than any other tree in Iowa. It makes durable posts and poles and good fuel. Plant 6 by 4 feet in any good land not excessively wet. It starts to grow very early in the spring, consequently we will send these out by express before our regular deliveries.

**Honey Locust.** The most valuable two-purpose tree. It produces excellent posts and the best of fuel and is one of the most rapid growers. It is unexcelled for windbreaks and makes an excellent hedge which will stand severe pruning.

## Miscellaneous

**Raffia.** Best Madagascar, for tying buds and plants. 15c per lb., 8 lbs. for \$1.00.

**Grafting Thread.** Unwaxed. 10c per ball. Waxed. 15c per ball. If by mail, add 2c per ball for unwaxed and 7c per ball for waxed.

**Grafting Knives.** Hand forged, razor steel, 40c each; by mail, 45c.

**Budding Knives.** Ebony handle, bone tip for raising bark, finest razor steel, 75c each; add 5c for postage.

**Pruning Shears.** Best made, \$1.00 each; by mail, \$1.10.

**Honey Bees, Queens.** Write for prices.

**In Our Hothouse** we grow a general line of Garden and Vegetable Plants for early planting, including Cabbage, Tomato, Cauliflower, Eggplant, Pepper, Celery and Sweet Potato. Prices sent on application.

**Root Grafts.** We have a large stock of most kinds of fruit tree seedlings, and will be prepared to put up first-class root grafts of almost everything mentioned in this catalogue. Send list of grafts wanted, and we will make the price right. Orders for grafts must be received by March 1st.

## Spraying Information

Spraying is now recognized as a necessary operation to keep plants and trees healthy, especially where grown extensively; accordingly we print a few of the standard formulas and a very brief outline of treatment for the common fruits. For more complete information send to the Horticultural Department at Ames, Iowa, for spraying calendar.

### For Biting Insects

#### Lead Arsenate

Lead acetate (sugar of lead) 11 oz.  
Sodium arsenate ..... 4 oz.  
Water ..... 50 gal.

Pulverize and dissolve the acetate and arsenate separately and pour together. This formula may be used two or three times this strength without injury to plants. It adheres better than any other arsenical spray and is altogether more desirable.

#### Arsenic, Soda and Lime.

White arsenic ..... 1 lb.  
Sal-soda ..... 4 lb.  
Water ..... 1 gal.

Boil the above ingredients for fifteen to twenty minutes, when the arsenic should be dissolved, leaving only a little sediment. This stock solution may be kept indefinitely, but should be labeled "poison."

Two quarts of this solution may be used in place of 1 pound Paris Green by adding about 4 pounds fresh slacked lime with it.

In employing these formulas use great care. The pots and utensils used in preparing the solution should not be employed for other purposes. The arsenic should be plainly labeled, lest it be mistaken for something else.

#### Paris Green.

Paris green ..... 1 lb.  
Lime (fresh) ..... 1 lb.  
Water ..... 100 to 200 gallons.

#### Hellebore—Also for Sucking Insects.

White Hellebore ..... 1 oz.  
Water ..... 2 gals.

Or mix with three parts flour and dust on. It does not poison ripening fruit.

### For Sucking Insects

#### Kerosene Emulsion.

Kerosene (coal oil) ..... 2 gals.  
Rain water ..... 1 gal.  
Soap ..... ½ lb.

Dissolve soap in water by boiling; take from fire and while hot turn in kerosene and churn briskly for five minutes. To be diluted before using, with nine parts water; for scale, insects and all sucking insects on growing plants.

#### Tobacco Infusion.

Tobacco (waste stems) ..... 1 lb.  
Boiling water ..... 4 gals.

Add hot water to tobacco and let stand until cold. Strain and add 1 pound of whale oil soap or 2 pounds of soft soap to each 50 gallons of infusion. For aphids.

#### Pyrethrum or Insect Powder.

Pyrethrum powder ..... 1 oz.  
Water ..... 3 gals.

For dry application—Mix thoroughly one part by weight of insect powder with four of cheap flour and keep in a closed vessel for 24 hours before dusting over plants attacked.

#### Lime-Sulphur Wash.

Quicklime (fresh) ..... 15 lbs.  
Sulphur ..... 15 lb.

Place lime in kettle, add sufficient water to slake and stir in sulphur while slaking. Boil until dissolved which requires an hour or more. Add sufficient water to make 50 gallons and apply while warm. Apply only to dormant trees.

## Fungicides

### Bordeaux Mixture.

Copper-sulphate ..... 5 lbs.  
Quicklime (not air-slaked). 5 lbs.  
Water (one barrel) ..... 50 gals.

Dissolve the copper-sulphate (blue stone) by suspending it in a wooden vessel such as a half-barrel containing 25 gallons of water; slake the lime in another vessel. The slaking should be done slowly, otherwise it is apt to be granular. Now dilute the slaked lime in 25 gallons of water, and pour it and the solution of copper-sulphate into the spray barrel at the same time. Do not pour in first one and then the other, as this will not allow the proper combination of chemicals to take place and a sediment will be formed that will clog pump and nozzles.

It is well to strain the solutions as they are poured together, for which purpose a copper strainer having 18 to 24 meshes to the inch is recommended. Do not add the lime until ready to apply the mixture.

Stock solutions of dissolved copper-sulphate and lime may be prepared and kept in separate covered barrels throughout the spraying season. The proportions of blue stone, lime and water should be carefully entered.

### Dilute Bordeaux Mixture.

This mixture is made exactly as the above with the exception that it is but  $\frac{1}{2}$  to  $\frac{2}{3}$  as strong. This mixture should be used for trees having tender foliage, such as the peach and Japanese plum.

### Bordeaux Mixture Test.

The quantity of lime required in Bordeaux Mixture varies considerably; for this reason each lot should be tested before using.

## General Treatment for Fruits

**Apples.** For fungous diseases and eating insects, lead arsenate and Bordeaux. 1st, just as buds open; 2nd, just before blossoms open; 3rd, just after petals fall; 4th, ten to twenty days later; 5th, late July or early August, important for second brood of codling moth. For scales on any kind of trees, use lime and sulphur wash early in spring before growth starts, and late in the fall.

**Cherries.** For curculio, fruit rot and leaf diseases, Bordeaux and lead arsenate. 1st, before blossoms open; 2nd, just after petals fall; 3rd, ten to fifteen days later; 4th, Bordeaux for leaf diseases after fruit is off.

**Plums.** For curculio, fruit rot, etc., arsenate of lead and Bordeaux, (dilute Bordeaux for Japanese variety). 1st, before blossoms open; 2nd, just after petals fall; 3rd, ten days later; 4th, ammoniacal copper carbonate for fruit rot, late July. For web worms, arsenate of lead whenever necessary.

To ascertain if sufficient lime has been used, take a small quantity of the mixture and add two or three drops of a solution of yellow prussiate of potash. If this changes the Bordeaux Mixture to a reddish brown color, there is not enough lime present; add more and test again. An excess of lime is desirable. The prussiate of potash may be obtained at a drug store in crystalized form and readily dissolved.

## Combination of Fungicide and Insecticide

When spraying for a fungous disease, except when plants are in the dormant state, an arsenical mixture may be added to the Bordeaux to advantage and the spraying will be effective against the biting insects as well as plant diseases. To the Bordeaux add the usual amount of Paris Green, lead arsenite or arsenite of lime, letting the Bordeaux answer for the specified amount of water.

### Ammoniacal Copper Carbonate.

Copper carbonate ..... 6 ozs.  
Strong ammonia ..... 3 qts.  
Soap ..... 1 lb.  
Water ..... 40 to 50 gallons.

Dilute the ammonia somewhat and use enough to dissolve the carbonate, then add water to make 40 gallons. Dissolve the soap in 10 gallons and add it.

This solution must be kept away from the air if not used when made. It is useful for spraying full grown or ripening fruit, as it does not produce stains as Bordeaux would.

### Lime and Sulphur.

In many cases any concentrated lime and sulphur solution can be used with lead arsenate in place of Bordeaux, providing it is diluted to contain about 4 pounds of sulphur for 50 gallons.

### FORMALINE (For Potato Scab.)

Soak tubers for two hours in a solution of commercial formaline, 1 pint (40 per cent solution) in 30 gallons of water.

**Peaches.** For leaf curl and fruit rot, lime-sulphur wash before buds open.

**Pears.** Same as for apples. For blight, cut off affected branches as soon as they appear and burn them. Disinfect the tools each time with kerosene or bichloride of mercury.

**Grapes.** For mildew and black rot, Bordeaux Mixture. 1st, before new growth is 8 inches long. (Important); 2nd, just before blooming; 3rd, just after fruit sets. (Important); 4th, ten to twenty days later; 5th, ten to twenty days later.

**Currants and Gooseberries.** For leaf spot and worms, Bordeaux and lead arsenate. 1st, when worms appear; 2nd, when fruit is one-half grown; 3rd, Bordeaux after picking; 4th, repeat two weeks later if necessary.

**Strawberries.** For leaf roller, lead arsenate, double strength just after moths are first noticed; 2nd, repeat one week later. Cut leaves and burn as soon as fruit is off. For leaf diseases Bordeaux, when growth begins and at intervals of ten days if necessary.

**Raspberries—Blackberries—Dewberries.** For orange rust, dig and burn at once. For anthracnose when serious, cut and burn the affected patch in the fall or spring.

**Potatoes.** For beetles, lead arsenate, double strength, when they appear and from eight to ten days afterwards. For blight, Bordeaux  $1\frac{1}{2}$  times standard mixture, with the arsenate. For scab, soak seed potatoes two hours in formaline (40% solution) 1 pint to 30 gallons of water.

**Cucumbers, Melons, Etc.** For striped beetles, tobacco dust as soon as through the ground; for lice, kerosene emulsion applied to under side of leaves.



SPIREA ANTHONY WATERER (See page 27.)

## CENTER POINT, IOWA

191

AMOUNT CLOSED

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Draft - - - - - \$.....

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**SUBSTITUTION**—It frequently occurs that special varieties ordered have been in great demand and the stock has been exhausted. In such cases we **WILL NOT SUBSTITUTE UNLESS YOU ASK US TO**, but your money will be returned. If you want us to send the next best, we will. Shall we substitute or not? **Yes or No?**

[illegible]

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## ORDER SHEET—Continued

[illegible]

Please give names and addresses of a few friends who are interested in fruit-growing.

[illegible]

# THE HANDY SPRAY CALENDAR. A Condensed Table of Diseases and Remedies

Prepared by Howard Everts Weed, M. S., formerly Entomologist and Horticulturist, Mississippi Experiment Station. Reproduced by permission of the Deming Co., Spray Pump Mfrs., Salem, O.

| Plant                          | Insects and Diseases                           | Remedy                                        | First Application                                                                           | Second Application                                                 | Third Application                                   | Remarks                                                                                                                                                                  |
|--------------------------------|------------------------------------------------|-----------------------------------------------|---------------------------------------------------------------------------------------------|--------------------------------------------------------------------|-----------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>APPLE</b> .....             | San Jose Scale                                 | Lime-sulphur or soluble oils, as recommended. | Early in November.                                                                          | In February, same as first.                                        | For summer treatment, use 10 per cent kerosene.     | San Jose scale cannot be destroyed in a single treatment, but is easily kept in check by a little effort. If only a few trees of an orchard are affected, burn them off. |
|                                | Oyster - shell and Scurfy Scale, Woolly Aphis. | Soluble oils as recommended.                  | Use when young first hatch in early spring.                                                 | Repeat in ten days.                                                |                                                     | If Woolly Aphis is present on roots, dip stock in 1-15 solution of recommended prepared oil compound.                                                                    |
| <b>CHERRY</b> .....            | Codling Moth, Bud Moth, Apple Scab.            | Bordeaux and arsenate of lead mixed.          | Early spring, before the buds swell.                                                        | As soon as blossoms fall.                                          | Two weeks later.                                    | A fourth application will pay. If bitter rot is present, a fifth application should be made.                                                                             |
|                                | Black Aphis and Rot.                           | Kerosene, soluble oils as recommended.        | Soluble oils as recommended as soon as plant lice are noticed. Bordeaux when fruit has set. | Repeat if needed.                                                  | Repeat if needed.                                   | Cherry Aphis is one of the hardest insects to kill and the kerosene should be used as strong as possible, but not strong enough to kill the foliage.                     |
| <b>GRAPE</b> .....             | Rot and Mildew.                                | Bordeaux.                                     | When buds first swell.                                                                      | Repeat in ten days.                                                | Repeat in ten days.                                 | Fourth application is needed. Use arsenate of lead if flea beetles are present.                                                                                          |
|                                | Rot and Leaf-Curl.                             | Bordeaux.                                     | In March, before buds swell.                                                                | After blossoms fall.                                               | Repeat in two weeks.                                | Best to add arsenate of lead for any biting insects which may be present.                                                                                                |
| <b>PEAR</b> .....              | Codling Moth and Scab.                         | Bordeaux, with arsenate of lead added.        | Before blossoms open.                                                                       | After blossoms fall.                                               | Repeat two weeks later.                             | The fire blight of the pear cannot be controlled by spraying.                                                                                                            |
|                                | Curculio and Blight.                           | Bordeaux, with arsenate of lead added.        | After blossoms fall.                                                                        | Repeat in ten days.                                                | Recommended solution if Aphis is present            | If scale insects are present, use lime-sulphur or recommended compound.                                                                                                  |
| <b>CURRBANT and GOOSEBERRY</b> | Mildew, Aphis.                                 | Bordeaux.                                     | When leaves appear.                                                                         | Ten days later, Bordeaux for worms; quassia and tobacco for Aphis. | Repeat second when necessary                        | Watch the plants closely in spring and begin spraying as soon as worms are discovered.                                                                                   |
|                                | Fungous diseases.                              | Bordeaux.                                     | When buds begin to swell.                                                                   | When leaves are opening, Bordeaux. Cut out all rusted canes.       | Two weeks later (when not in flower) repeat second. | Dilute the mixture to half the strength given in formula—100 gallons of water instead of 50.                                                                             |



CAMPERDOWN WEEPING ELM (See page 26).